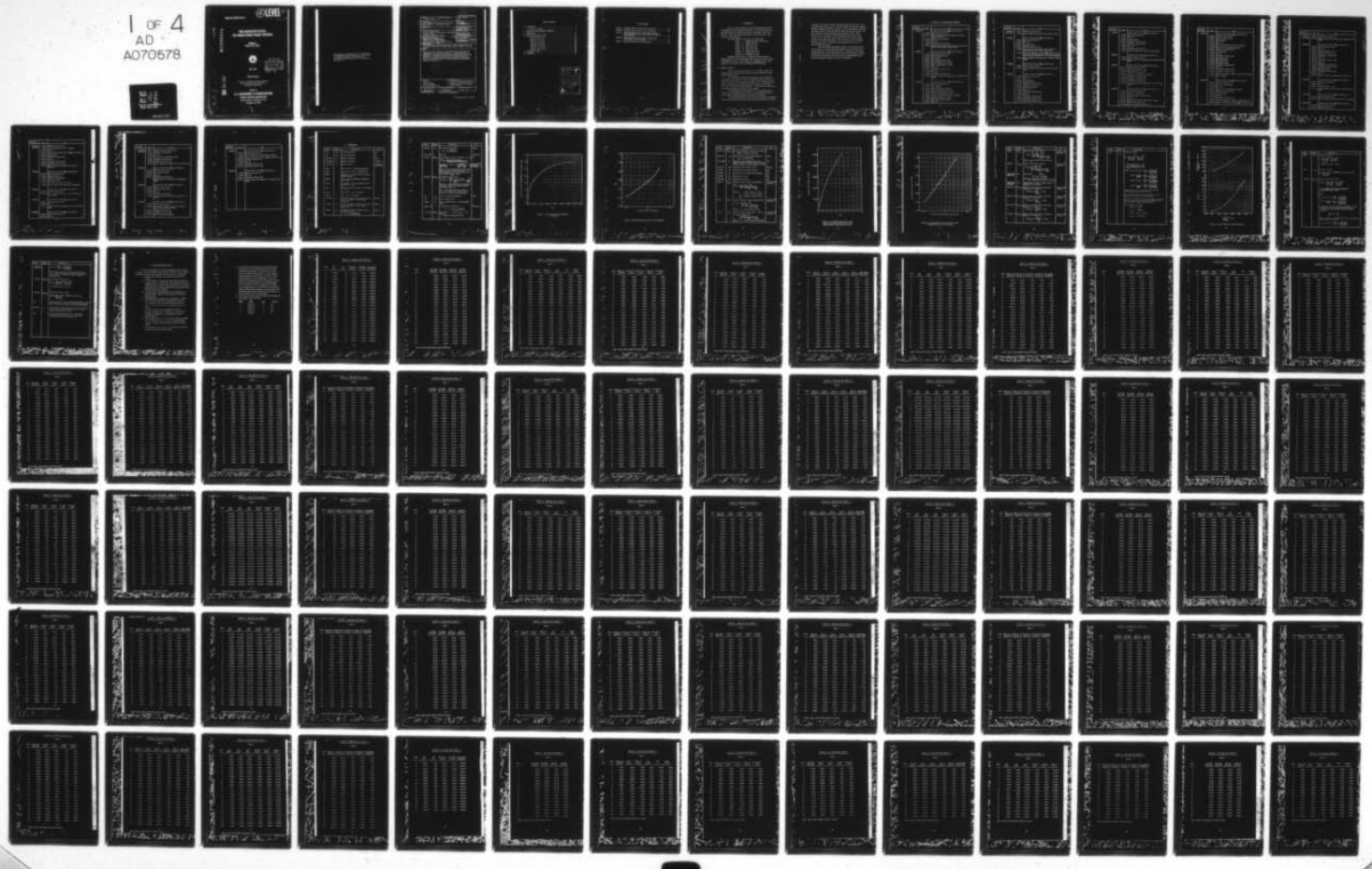
AD-A070 578 NORTHERN RESEARCH AND ENGINEERING CORP CAMBRIDGE MASS F/G 13/2
TIME DEGRADATION FACTORS FOR TURBINE ENGINE EXHAUST EMISSIONS, --ETC(U)
MAY 78 DOT-FA74NA-1100
UNCLASSIFIED NREC-1238-11 FAA-RD-78-56-6 NL

1 OF 4
AD
A070578



(2) LEVEL III

A070577

Report No. FAA-RD-78-56, VI

ADA070578

# TIME DEGRADATION FACTORS FOR TURBINE ENGINE EXHAUST EMISSIONS

## VOLUME VI
## JT9D-3A TEST DATA



DDC
RECEIVED
JUN 29 1979
B

MAY 1978

INTERIM REPORT

Document is available to the public through the
National Technical Information Service,
Springfield, Virginia 22151

Prepared for

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Systems Research & Development Service
Washington, D.C. 20590

DDC FILE COPY

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

(12) 377 p.

Technical Report Documentation Page

| | | |
|---|---|---|
| 1. Report No. FAA-RD-78-56, VI | 2. Government Accession No. | 3. Recipient's Catalog No. (11) |
| 4. Title and Subtitle (6) Time Degradation Factors for Turbine Engine Exhaust Emissions, Volume VI, JT9D-3A Test Data | | 5. Report Date May 1978 ✓ |
| | | 6. Performing Organization Code |
| 7. Author(s) | | 8. Performing Organization Report No. FAA-NA-77-179 (14) NREC - 1238 - 11 ✓ |
| 9. Performing Organization Name and Address Northern Research and Engineering Corporation 219 Vassar Street Cambridge, Massachusetts 02139 | | 10. Work Unit No. (TRAIS) (15) DOT FA74NA-1100 ✓ |
| 12. Sponsoring Agency Name and Address Department of Transportation FEDERAL AVIATION ADMINISTRATION Systems Research and Development Service Washington, D. C. 20591 | | 13. Type of Report and Period Covered (9) Interim Report August 1974 - June 1977 |
| | | 14. Sponsoring Agency Code |

15. Supplementary Notes
This investigation was performed under a contract administered by the National Aviation Facilities Experimental Center, Atlantic City, New Jersey.

16. Abstract
This is the sixth volume of an eight-volume report concerning the degradation of turbine engine emissions. This volume contains a compilation of all emission test data and analysis data used in the development of degradation factors for the JT9D-3A engine type. In addition, the volume contains maintenance data for the test units during the period of testing, as well as analyses of the samples of fuel used in each test.

(18) FAA-RD, FAA-NA-

(19) 78-56-6, 77-179-VOL-6

| 17. Key Words | 18. Distribution Statement |
|---|---|
| Aircraft<br>Turbine Engine<br>Exhaust Emissions<br>Time Degradation Factors | Document is available to the public through the National Technical Information Service, Springfield, Virginia 22151 |

| 19. Security Classif. (of this report) | 20. Security Classif. (of this page) | 21. No. of Pages | 22. Price |
|---|---|---|---|
| UNCLASSIFIED | UNCLASSIFIED | 371 | |

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

* U. S. GOVERNMENT PRINTING OFFICE : 1973 725-604/328

260 350

TABLE OF CONTENTS


1. INTRODUCTION . . . . . 1
   1.1 Content of Volume . . . . . 1
2. ENGINE TEST AND MAINTENANCE CHRONOLOGY . . . . . 3
3. NOMENCLATURE . . . . . 11
4. EMISSIONS AND ANALYSIS DATA . . . . . 23
   Baseline Test Series . . . . . 25
   600 Hour Test Series . . . . . 82
   1200 Hour Test Series . . . . . 139
   1500 Hour Test Series . . . . . 196
   1800 Hour Test Series . . . . . 253
   2100 Hour Test Series . . . . . 310
5. FUEL ANALYSIS DATA . . . . . 367
6. REFERENCES . . . . . 371



Accession For
NTIS GRA&I ☑
DDC TAB ☐
Unannounced ☐
Justification
By
Distribution/
Availability Codes
Dist | Avail and/or special
A

## LIST OF FIGURES


Figure 1. Equivalent Nozzle Flow Parameter versus EPR . . . . . 13

Figure 2. Mean EPR versus $N_2$ Curve in the Idle Regime . . . . . 14

Figure 3. Estimated Engine Thrust versus Engine Pressure Ratio Characteristic with NAFEC Emissions Sampling Rake Installed... . . . . 16

Figure 4. Estimated Engine Thrust versus Corrected High Rotor Speed in the Idle Regime . . . . . 17

Figure 5. Typical Production Engine Performance . . . . . 20

# 1. INTRODUCTION

This is the sixth volume of an eight-volume report concerning the degradation of turbine engine emissions. This volume contains test data obtained for the JT9D-3A engine type as installed on the 747-100 aircraft. The engines, owned and operated by UAL, were tested in San Francisco by UAL personnel.

The other volumes of the report are listed below:

Volume I - Program Description and Results
Volume II - JT8D-9 Test Data
Volume III - JT8D-7 Test Data
Volume IV - JT3D-7 Test Data
Volume V - JT3D-3B Test Data
Volume VII - RB211-22B Test Data
Volume VIII - CF700-2D Test Data

Regarding the test data, it should be noted that EPA test specifications were not followed where they conflicted with the interests of degradation testing. Hence, comparison of absolute emission levels presented in this report with EPA standards may be misleading.

## 1.1 CONTENT OF REPORT

There are four sections that make up the volume: Engine Test and Maintenance Chronology; Nomenclature; Emissions and Analysis Data; and Fuel Analysis Data.

The Engine Test and Maintenance Chronology section contains a chronological, unit-by-unit, listing of noteworthy events occurring to a particular engine in the course of the program. This includes test dates, dates and descriptions of maintenance, and the dates of installations onto other aircraft that may have occurred. If an engine was removed from the program, the date and reason are also included.

The Nomenclature section contains a listing and description of all the titles and column headings used in the two succeeding sections. This includes all equations used in the various calculations.

The Emissions and Analysis Data section includes all data gathered during a test, plus the results of any calculations performed on that data.

It consists of a number of tables arranged according to test series. For the JT9D-3A engine there were six such series; Baseline; 600 Hour; 1200 Hour; 1500 Hour; 1800 Hour; 2100 Hour and above. The hour designations represent the nominal value of time since baseline (TSB) for each engine tested. The actual values of TSB are scattered about the nominal values. Within each test series, the data is further subdivided into a table of data pertinent to an entire test for an engine and a series of seven tables for each of the eight modes tested. Thus there are a total of 57 tables for each test series. In addition, the section begins with a set of notes documenting the data.

The Fuel Analysis Data section contains a unit-by-unit listing of the results of analyses performed on samples of jet fuel used during the emission tests. During each engine test, a sample of fuel was taken from the same fuel tank as used during the test and subsequently analyzed. The results of the analyses include API gravity, hydrogen-carbon ratio and the percentages of paraffins, olefins and aromatics.

## 2. ENGINE TEST AND MAINTENANCE CHRONOLOGY

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 1/662794 | | Original Test A/C No. 8020, Position No. 1 |
| | 9/4/75 | Baseline Emission Test |
| | 10/17/75 | Nozzle guide vane burned through; Engine Vane Control (EVC) trim |
| | 11/12/75 | "600-Hour" Emission Test |
| | 1/8/76 | EVC trim |
| | 1/30/76 | "1200-Hour" Emission Test |
| | 3/17/76 | Engine removed from program due to eroded nozzle guide vane and broken turbine blade |
| 2/663025 | | Original Test A/C No. 8020, Position No. 3 |
| | 9/1/75 | Uptrimmed engine 51 clicks |
| | 9/4/75 | Baseline Emission Test |
| | 9/14/75 | FCU replaced |
| | 9/26/75 | Uptrimmed engine 25 clicks |
| | 10/3/75 | Down-trimmed engine 7 clicks |
| | 10/6/75 | Down-trimmed engine 7 clicks |
| | 10/17/75 | EVC trim |
| | 11/12/75 | "600-Hour" Emission Test |
| | 1/8/76 | EVC trim |
| | 1/30/76 | "1200-Hour" Emission Test |
| | 3/17/76 | Engine removed from program due to cracked turbine blade |
| 3/663059 | | Original Test A/C No. 8020, Position No. 4 |
| | 9/4/75 | Baseline Emission Test |
| | 9/14/75 | FCU replaced |
| | 9/22/75 | Uptrimmed engine 16 clicks |
| | 9/23/75 | Down-trimmed engine 16 clicks |
| | 9/26/75 | Down-trimmed engine 26 clicks |
| | 9/30/75 | Number 15 and 16 fuel nozzles replaced |
| | 10/6/75 | Uptrimmed engine 13 clicks |
| | 10/7/75 | Uptrimmed engine 13 clicks |
| | 10/17/75 | EVC trim |

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 3/663059 Continued | 11/12/75 | "600-Hour" Emission Test |
| | 1/3/76 | Engine removed from program due to engine failure |
| 4/662802 | | Original Test A/C No. 8018, Position No. 1 |
| | 9/8/75 | Baseline Emission Test |
| | 11/7/75 | EVC trim |
| | 11/10/75 | Retrimmed engine |
| | 11/10/75 | "600-Hour" Emission Test |
| | 1/13/76 | Engine removed from program due to oil leak in angle gear box and oil out of towershaft |
| | 2/5/76 | Engine reinstalled on A/C No. 8035, Position No. 3 This engine had been removed but the repair did not affect gas path parameter so it has been reentered. |
| | 3/4/76 | Engine removed from program due to cracked turbine blades |
| 5/663083 | | Original Test A/C No. 8018, Position No. 2 |
| | 9/8/75 | Baseline Emission Test |
| | 11/7/75 | Engine removed from program due to failed turbine blade |
| 6/662734 | | Original Test A/C No. 8018, Position No. 3 |
| | 9/8/75 | Baseline Emission Test |
| | 11/7/75 | EVC trim |
| | 11/10/75 | Trimmed engine |
| | 11/10/75 | "600-Hour" Emission Test |
| | 2/12/76 | "1200-Hour" Emission Test |
| | 2/16/76 | Replaced nose cowl |
| | 2/27/76 | EVC trim |
| | 4/7/76 | "1500-Hour" Emission Test |
| | 5/6/76 | EVC trim |
| | 5/21/76 | "2100-Hour" Emission Test |
| | 6/14/76 | "2400-Hour" Emission Test |
| | 7/12/76 | "2700-Hour" Emission Test |

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 7/662516 | | Original Test A/C No. 8018, Position No. 4 |
| | 9/8/75 | Baseline Emission Test |
| | 11/7/75 | EVC trim |
| | 11/10/75 | Trimmed engine |
| | 11/10/75 | "600-Hour" Emission Test |
| | 2/2/76 | "1200-Hour" Emission Test |
| | 2/27/76 | EVC trim |
| | 4/7/76 | "1500-Hour" Emission Test |
| | 4/8/76 | Engine removed due to cracked turbine blade |
| 8/663007 | | Original Test A/C No. 8011, Position No. 1 |
| | 9/11/75 | Baseline Emission Test |
| | 1/4/76 | Engine removed from program due to cracked turbine blade |
| 9/662619 | | Original Test A/C No. 8011, Position No. 3 |
| | 9/11/75 | Baseline Emission Test |
| | 10/10/75 | Uptrimmed engine 25 clicks |
| | 1/15/76 | "600-Hour" Emission Test |
| | 2/23/76 | Throttle rig checked and adjusted |
| | 3/1/76 | "1200-Hour" Emission Test |
| | 4/28/76 | "1500-Hour" Emission Test |
| | 5/20/76 | "1800-Hour" Emission Test |
| | 6/15/76 | Engine removed from program due to turbine blade failure |
| 10/662628 | | Original Test A/C No. 8032, Position No. 1 |
| | 9/15/75 | Baseline Emission Test |
| | 9/18/75 | No noise trimmed engine |
| | 9/22/75 | Decreased engine trim 26 clicks |
| | 11/7/75 | EVC trim |
| | 12/4/75 | Replaced fuel nozzle, engine slow to start |
| | 12/11/75 | "600-Hour" Emission Test |
| | 1/14/76 | Engine removed due to loss of oil |

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 11/662733 | | Original Test A/C No. 8032, Position No. 2 |
| | 9/18/75 | No noise trimmed engine |
| | 9/22/75 | Baseline Emission Test |
| | 10/5/75 | FCU replaced |
| | 11/7/75 | EVC trim |
| | 11/22/75 | High stage bleed will not open, replaced |
| | 12/2/75 | Slow to start, replaced $T_{T2}$ sensor |
| | 12/15/75 | "600-Hour" Emission Test |
| | 1/8/76 | Trimmed engine |
| | 3/4/76 | EVC trim |
| | 3/8/76 | "1200-Hour" Emission Test |
| | 3/11/76 | Retrimmed engine |
| | 4/4/76 | Retrimmed engine |
| | 4/12/76 | Rerigged throttle |
| | 4/21/76 | "1500-Hour" Emission Test |
| | 5/11/76 | EVC trim |
| | 5/19/76 | "1800-Hour" Emission Test |
| | 6/17/76 | "2100-Hour" Emission Test |
| | 7/5/76 | Bleed valve opens in cruise, replaced flow divider |
| | 7/18/76 | Engine removed |
| 12/662424 | | Original Test A/C No. 8032, Position No. 4 |
| | 9/15/75 | Baseline Emission Test |
| | 9/18/75 | No noise trimmed engine |
| | 11/7/75 | EVC trim |
| | 12/4/75 | Slow to start, replaced fuel nozzles |
| | 12/11/75 | "600-Hour" Emission Test |
| | 1/8/76 | Trimmed engine |
| | 3/4/76 | EVC trim |
| | 3/11/76 | "1200-Hour" Emission Test |
| | 3/12/76 | Engine removed due oil smell in cabin, EVC trim |
| | 3/22/76 | Engine reinstalled on A/C No. 8004, Position No. 1 |

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 12/662424 Continued | 4/22/76 | "1500-Hour" Emission Test |
| | 4/25/76 | Engine removed from program due to cracked turbine blade |
| 13/663046 | | Original Test A/C No. 8010. Position No. 1 |
| | 9/16/75 | Baseline Emission Test |
| | 9/18/75 | EVC trim |
| | 9/20/75 | Accomplished FCU trim |
| | 12/4/75 | "600-Hour" Emission Test |
| | 2/27/76 | "1200-Hour" Emission Test |
| | 3/10/76 | EVC trim |
| | 3/31/76 | "1500-Hour" Emission Test |
| | 5/12/76 | EVC trim |
| | 5/13/76 | "1800-Hour" Emission Test |
| | 6/9/76 | "2100-Hour" Emission Test |
| | 8/9/76 | Retrimmed engine |
| | 8/10/76 | "2700-Hour" Emission Test |
| | 8/31/76 | EVC trim |
| | 9/20/76 | Engine removed from program due to disk limit |
| 14/663031 | | Original Test A/C No. 8010, Position No. 2 |
| | 9/16/75 | Baseline Emission Test |
| | 9/18/75 | EVC trim |
| | 9/20/75 | Accomplished FCU trim |
| | 11/13/75 | Engine removed from program due to failed turbine blade |
| 15/663092 | | Original Test A/C No. 8004, Position No. 2 |
| | 9/17/75 | Baseline Emission Test |
| | 11/25/75 | Engine removed from program due to bird ingestion |
| 16/662575 | | Original Test A/C No. 8004, Position No. 3 |
| | 9/17/75 | Baseline Emission Test |
| | 11/22/75 | Checked throttle rig |

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 16/662575 Continued | 1/8/76 | "600-Hour" Emission Test |
| | 1/12/76 | Engine removed due to fan rev damage |
| | 1/21/76 | EVC trim |
| | 1/23/76 | Engine reinstalled on A/C No. 8013, Position No. 3 |
| | 1/28/76 | Replaced EVC |
| | 3/25/76 | "1200-Hour" Emission Test |
| | 5/7/76 | EVC trim |
| | 5/19/76 | "1500-Hour" Emission Test |
| | 6/29/76 | "1800-Hour" Emission Test |
| | 7/4/76 | Engine removed from program due to metal in tailpipe |
| 17/662728 | | Original Test A/C No. 8004, Position No. 4 |
| | 9/17/75 | Baseline Emission Test |
| | 11/22/75 | Checked throttle rig |
| | 1/8/76 | "600-Hour" Emission Test |
| | 1/12/76 | Replaced fan case |
| | 1/23/76 | EPR reads low replaced transmitter |
| | 3/8/76 | Engine removed from program due to eroded NGV |
| 18/663069 | | Original Test A/C No. 8027, Position No. 2 |
| | 9/19/75 | Baseline Emission Test |
| | 11/11/75 | Engine removed from program due to nozzle guide vane erosion |
| 19/663075 | | Original Test A/C No. 8027, Position No. 3 |
| | 9/19/75 | Baseline Emission Test |
| | 10/3/75 | EVC trim |
| | 11/11/75 | Engine removed from program due to failed turbine blade |
| 20/663088 | | Original Test A/C No. 8003, Position No. 1 |
| | 9/22/75 | Baseline Emission Test |
| | 10/16/75 | EVC trim |

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 20/663088 Continued | 10/26/75 | Replaced high stage bleed valve |
| | 11/21/75 | "600-Hour" Emission Test |
| | 2/2/76 | EVC trim |
| | 2/11/76 | Hard to start, replaced $T_{T2}$ sensor |
| | 3/9/76 | "1200-Hour" Emission Test |
| | 4/8/76 | "1500-Hour" Emission Test |
| | 4/11/76 | Engine removed from program due to turbine failure |
| 21/662618 | | Original Test A/C No. 8018, Position No. 4 |
| | 4/13/76 | Baseline Emission Test |
| | 9/14/76 | Fuel control replaced |
| | 10/16/76 | EVC trim |
| | 10/20/76 | "1500-Hour" Emission Test |
| | | Engine removed from program due to compressor damage |
| 22/663069 | | Original Test A/C No. 8018, Position No. 2 |
| | 11/10/75 | Baseline Emission Test |
| | 1/29/76 | "600-Hour" Emission Test |
| | 2/27/76 | EVC trim |
| | 4/13/76 | "1200-Hour" Emission Test |
| | 5/6/76 | Engine removed from program due to metal in oil system |
| 23/662607 | | Original Test A/C No. 8003, Position No. 2 |
| | 4/8/76 | Baseline Emission Test |
| | 6/28/76 | Emission test aborted, due to high vibration during mode 3, cause not known |
| | 7/15/76 | "600-Hour" Emission Test |
| | 9/24/76 | "1200-Hour" Emission Test |
| | 11/22/76 | Engine removed from program |

| Unit No./ Serial No. | Date | Item |
|---|---|---|
| 24/663059 | | Original Test A/C No. 8010, Position No. 4 |
| | 3/31/76 | Baseline Emission Test |
| | 5/8/76 | Engine removed, 3.0 bleed actuator replaced |
| | 5/26/76 | Engine reinstalled on A/C No. 8013, Position No. 1 |
| | 6/29/76 | "600-Hour" Emission Test |
| | 8/9/76 | EVC trim |
| | 9/24/76 | "1200-Hour" Emission Test |
| | 11/22/76 | "1500-Hour" Emission Test |
| 25/662628 | | Original Test A/C No. 8020, Position No. 1 |
| | 4/2/76 | Baseline Emission Test |
| | 7/6/76 | EVC trim |
| | 8/24/76 | "1200-Hour" Emission Test |
| | 9/24/76 | Engine removed from program due to broken turbine blades |

## 3. NOMENCLATURE

| Name | Symbol | Description | Unit |
|---|---|---|---|
| TSO | TSO | Time Since Overhaul | hrs |
| TSB | TSB | Time Since Baseline | hrs |
| AMB TEMP | $T_a$ | Ambient temperature | deg R |
| AMB PRESS | $P_a$ | Barometric pressure | in Hg abs |
| AMB HUMID | H | Ambient humidity | lbm $H_2O$ per lbm dry air |
| MODE 1 | | Idle, initial - 65 percent $N_2$ nominal | |
| MODE 2 | | Idle "plus", initial - 69 percent $N_2$ | |
| MODE 3 | | Take-off - T.O. EPR from airline engine operating guide | |
| MODE 4 | | Climb - EPR corresponding to 85 percent T.O. thrust | |
| MODE 5 | | Intermediate - EPR corresponding to 60 percent T.O. thrust | |
| MODE 6 | | Approach - EPR corresponding to 30 percent T.O. thrust | |
| MODE 7 | | Idle "plus", final - see MODE 2 | |
| MODE 8 | | Idle, final - see MODE 1 | |
| N1 SPEED | $N_1$ | Rotational speed of low pressure turbine. given as a percent of design speed (3400 rpm) | percent |
| N2 SPEED | $N_2$ | Rotational speed of high pressure turbine, given as a percent of design speed (7807 rpm) | percent |
| CORR N1 | $N_1'$ | $N_1$ speed corrected to standard ambient conditions (Ref 1) $N_1' = N_1 \times \sqrt{518.7/T_a}$ | percent |

| Name | Symbol | Description | Unit |
|---|---|---|---|
| CORR N2 | $N_2'$ | Corrected $N_2$ speed (Ref 1)<br>$N_2' = N_2 \times \sqrt{518.7/T_a}$ | percent |
| FUEL FLOW | F | Fuel Flow | lbm per hr |
| CB F/A | $(F/A)_{CB}$ | Carbon balance fuel-air ratio (Ref 1, dry basis)<br>$(F/A)_{CB} = \frac{(12+a)\times 4.77(1+0.25a)}{(1+0.25a)(32+3.73\times 28+0.04\times 40)} \div$<br>$\left[\frac{100}{\frac{CO+CO_2+HC}{10^4}} + 0.25a - \frac{1}{2}\left(\frac{CO/10^4}{\frac{CO+CO_2+HC}{10^4}}\right) - \frac{(1+0.25a)HC/10^4}{\frac{CO+CO_2+HC}{10^4}}\right]$<br>where a is the hydrogen-carbon ratio of the fuel as obtained in the fuel analysis. (A mean value was used when the analysis was not available; $a_{mean} = 1.90$) | |
| PERF F/A | $(F/A)_{PF}$ | Performance fuel-air ratio<br>$(F/A)_{PF} = F \div \left(\frac{FP_7 \times Aj \times P_a \times EPR}{\sqrt{T_{T6}}} - \frac{F}{3600}\right)$<br>where $FP_7$ is obtained from the curve shown in Figure 1 and Aj, the nozzle discharge area equals 914 sq in.<br><br>EPR is obtained from the curve shown in Figure 2 for modes 1,2,7, and 8. Actual test data is used for the other modes. | |
| TT6 | $T_{T6}$ | Turbine interstage temperature | deg R |
| EPR | EPR | Engine pressure ratio | |
| THURST | TH | Thrust, obtained from $TH = TH' \times (P_a/29.92)$ (Ref 1) | |
| CORR FU FL | F' | Corrected fuel flow (Ref 1)<br>$F' = F \times (29.92/P_a) \times \sqrt{518.7/T_a}$ | lbm per hr |
| COR CB F/A | $(F/A)'_{CB}$ | Corrected carbon balance fuel-air ratio (Ref 1)<br>$(F/A)'_{CB} = (F/A)_{CB} \times (518.7/T_a)$ | |

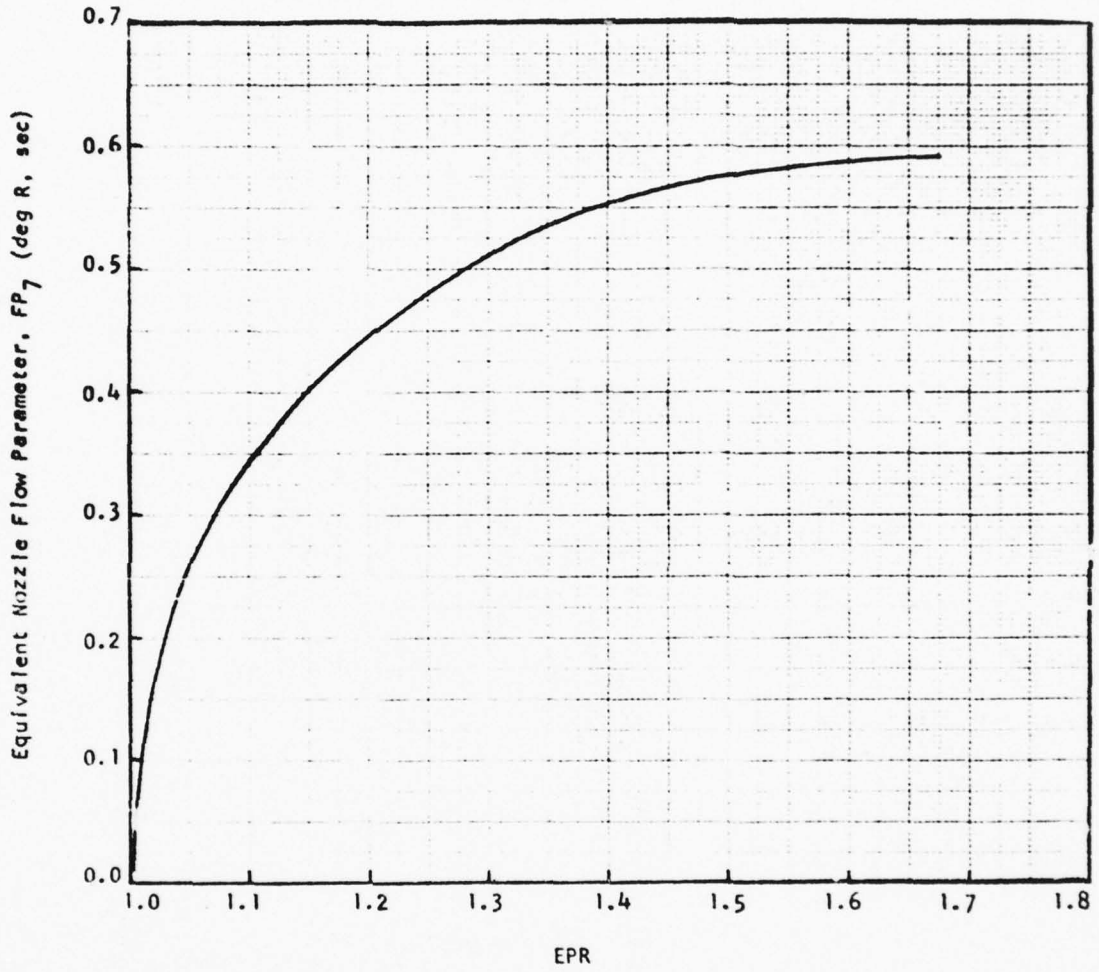



Figure 1. Equivalent Nozzle Flow Parameter versus EPR

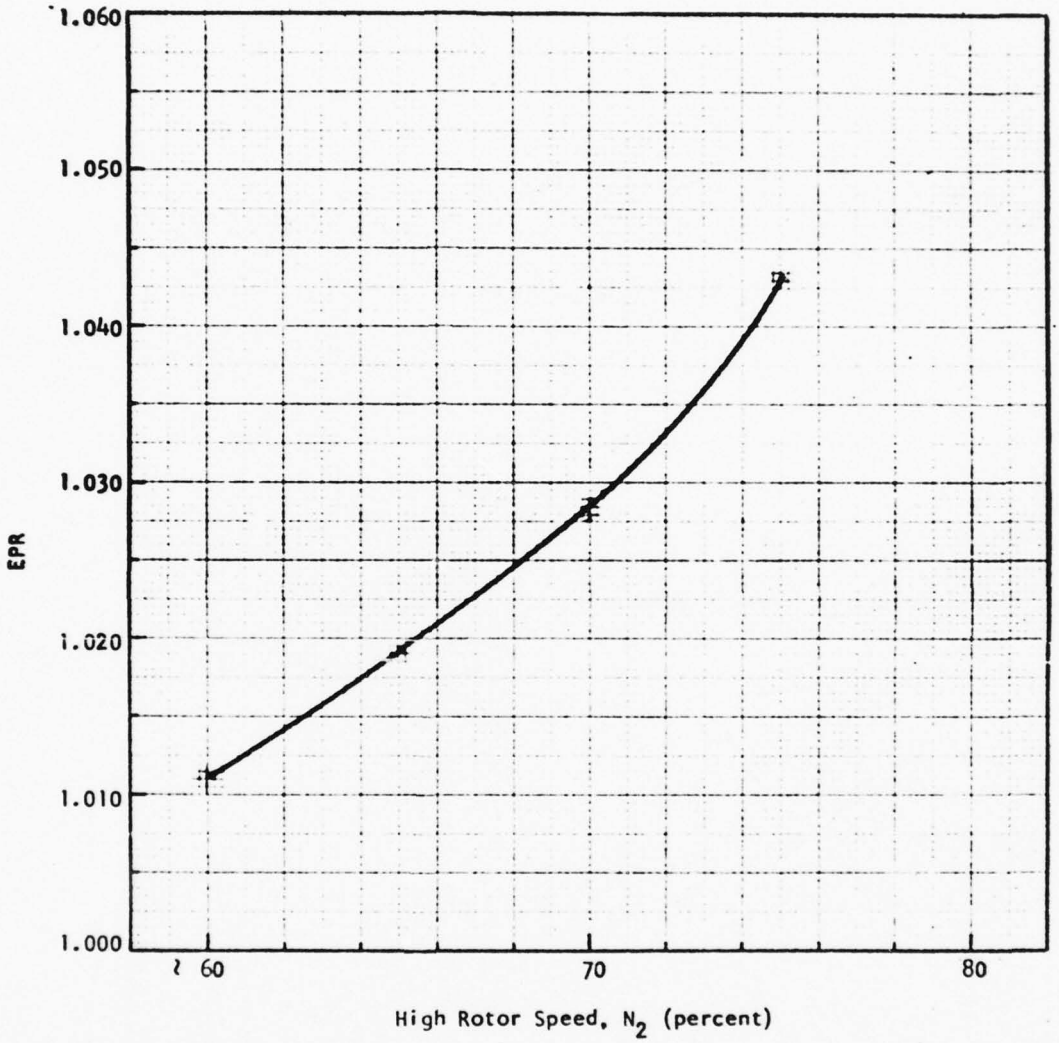



Figure 2. Mean EPR versus $N_2$ Curve in the Idle Regime

| Name | Symbol | Description | Unit |
|---|---|---|---|
| COR PF F/A | $(F/A)'_{PF}$ | Corrected performance fuel-air ratio (Ref 1) $(F/A)'_{PF} = (F/A)_{PF} \times (518.7/T_a)$ | |
| CORR TT6 | $T_{T6}$ | Corrected turbine interstage temperature $T_{T6}' = T_{T6} \times (518.7/T_a)$ | deg R |
| COR THRUST | TH' | Corrected thrust (obtained from curve shown in Fig 3 for modes 3 thru 6 and from the curve shown in Fig 4 for modes 1,2,7,8) | lbf |
| CO2 CONC | $CO_2$ | Concentration of carbon dioxide | percent |
| CO CONC | CO | Concentration of carbon monoxide | ppm |
| HC CONC | HC | Concentration of hydrocarbons (propane) | ppm |
| NO CONC | NO | Concentration of NO | ppm |
| NOX CONC | $NO_x$ | Concentration of $NO_x$ | ppm |
| CO2 EI | $EI_{CO_2}$ | Emission index of carbon dioxide (Ref 3) $EI_{CO2} = \frac{M_{CO2} \times CO_2 \times 1000}{(M_C + a \times M_H)(\frac{CO}{10^4} + CO_2 + \frac{HC}{10^4})}$ where: $M_C$ = atomic weight of carbon, $M_H$ = atomic weight of hydrogen, $M_{CO2}$ = molecular weight of $CO_2$ | lbm per 1000 lbm fuel |
| CO EI | $EI_{CO}$ | Emission index of carbon monoxide (Ref 3) $EI_{CO} = \frac{M_{CO} \times \frac{C}{10^4} \times 1000}{(M_C + a \times M_H)(\frac{CO}{10^4} + CO_2 + \frac{HC}{10^4})}$ where: $M_{CO}$ = molecular weight of CO | lbm per 1000 lbm fuel |
| HC EI | $EI_{HC}$ | Emission index of hydrocarbons (Ref 3) $EI_{HC} = \frac{M_{HC} \times \frac{HC}{10^4} \times 1000}{(M_C + a \times M_H)(\frac{CO}{10^4} + CO_2 + \frac{HC}{10^4})}$ where: $M_{HC}$ = molecular weight of methane | lbm per 1000 lbm fuel |

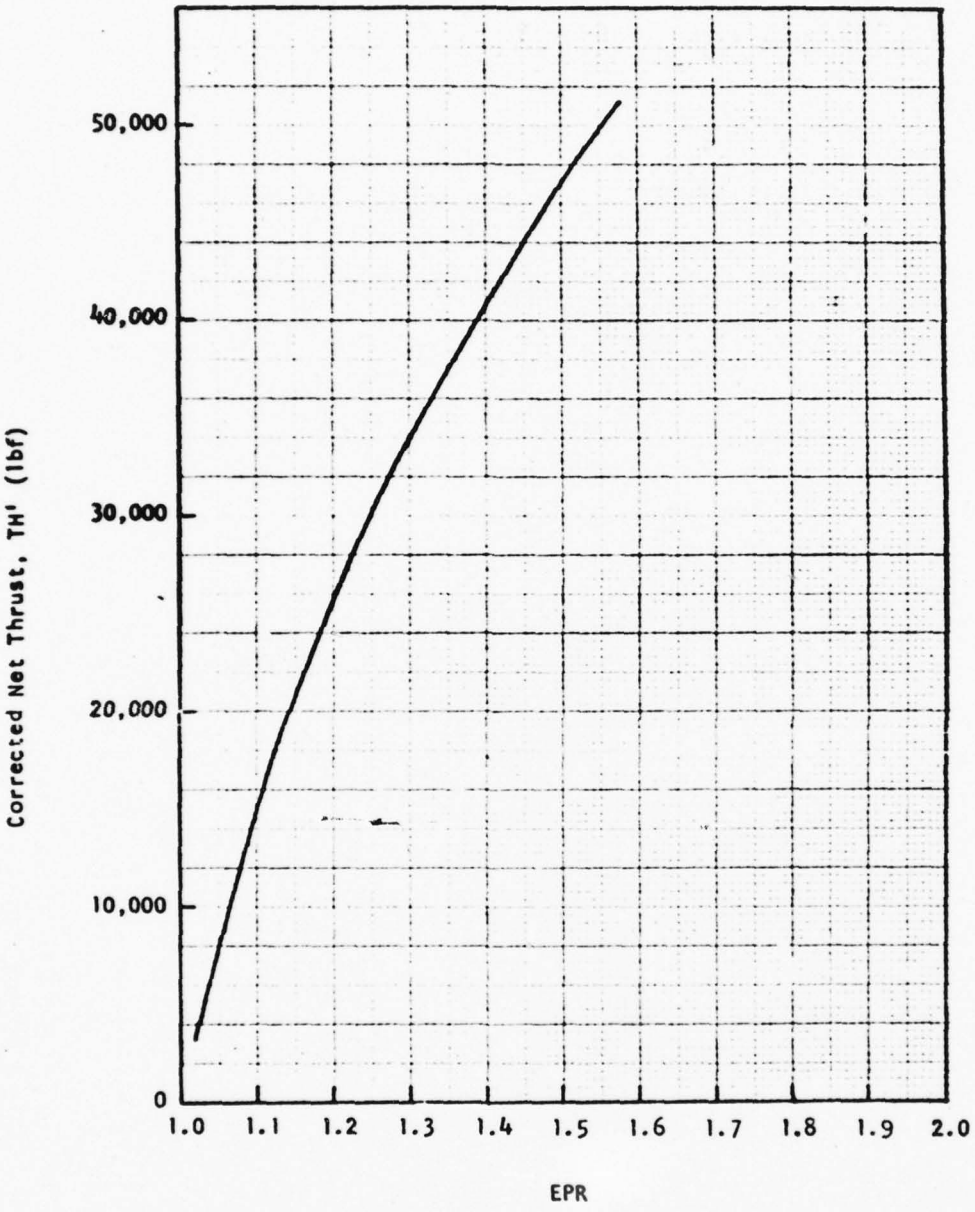



Figure 3. Estimated Engine Thrust versus Engine Pressure Ratio Characteristic with NAFEC Emissions Sampling Rake Installed

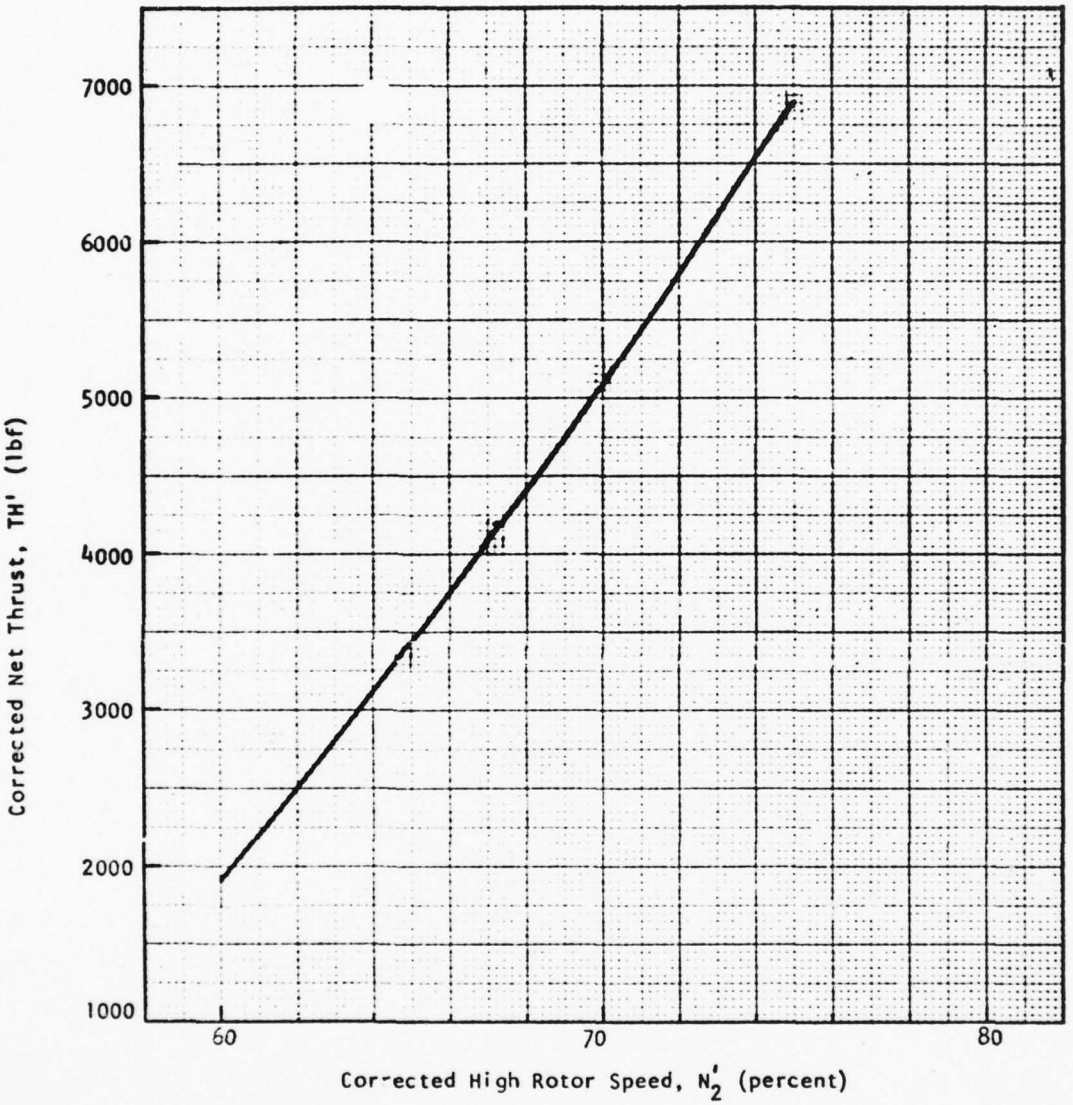



Figure 4. Estimated Engine Thrust versus Corrected High Rotor Speed in the Idle Regime

| Name | Symbol | Description | Unit |
|---|---|---|---|
| NO EI | $EI_{NO}$ | Emission index of NO (Ref 3)<br>$EI_{NO} = \frac{M_{NO_2} \times \frac{NO}{10^4} \times 1000}{(M_C + a \times M_H)(\frac{CO}{10^4} + CO_2 + \frac{HC}{10^4})}$<br>where: $M_{NO_2}$ = molecular weight of $NO_2$ | lbm per 1000 lbm fuel |
| NOX EI | $EI_{NO_x}$ | Emission index of $NO_x$ (Ref 3)<br>$EI_{NO_x} = \frac{M_{NO_2} \times \frac{NO_x}{10^4} \times 1000}{(M_C + a \times M_H)(\frac{CO}{10^4} + CO_2 + \frac{HC}{10^4})}$ | lbm per 1000 lbm fuel |
| SMK NUMBER FRONT SIDE | SN | Smoke Number (Ref 3)<br>$SN = 100 \times (1 - RS/RW)$<br>where RS = smoke spot reflectance<br>RW = reflectance of clean filter paper | |
| SMK NUMBER CORRECTED | SN' | Smoke Number corrected in manner shown in Appendix III of Volume I | |
| NREC CO EI | $(EI_{CO})_{std}$ | NREC corrected CO emission index (see Appendix II ov Volume I)<br>$(EI_{CO})_{std} = \frac{F_{CO}}{(F_{CO})_{std}} \times EI_{CO}$ | lbm per 1000 lbm fuel |
| NREC HC EI | $(EI_{HC})_{std}$ | NREC corrected HC emission index (see Appendix II of Volume I)<br>$(EI_{HC})_{std} = \frac{F_{HC}}{(F_{HC})_{std}} \times EI_{HC}$ | lbm per 1000 lbm fuel |
| NRE CNO EI | $(EI_{NO})_{std}$ | NREC corrected NO emission index (see Appendix II of Volume I)<br>$(EI_{NO})_{std} = \frac{(F_{NO})_{std}}{F_{NO}} \times EI_{NO}$ | lbm per 1000 lbm fuel |
| NR CNOX EI | $(EI_{NOx})_{std}$ | NREC corrected $NO_x$ emission index (see Appendix II of Volume I)<br>$(EI_{NO_x})_{std} = \frac{(F_{NO})_{std}}{F_{NO}} \times EI_{NO_x}$ | lbm per 1000 lbm fuel |

| Name | Symbol | Description |
|---|---|---|
| FCO | $F_{CO}$ | CO emission factor<br><br>$F_{CO} = \left[\frac{P_{b,obs}}{P_{b,ref}}\right]^{3/4} \cdot \left[\frac{T_{b,obs}}{T_{b,ref}}\right]^{1/2} \cdot$<br><br>$\frac{e^{T_{b,obs}/(400-F/A_{obs} \times 10^4)}}{e^{T_{b,ref}/(400-F/A_{ref} \times 10^4)}}$<br><br>where: $P_{b,ref} = P_{a,ref} \cdot f_1\left(N_{2,ref}/\sqrt{\frac{T_{a,ref}}{518.7}}\right)$<br><br>$T_{b,ref} = \frac{T_{a,ref}}{518.7} \cdot f_2\left(N_{2,ref}/\sqrt{\frac{T_{a,ref}}{518.7}}\right)$<br><br>$P_{b,obs} = P_{a,obs} \cdot f_1\left(N_{2,obs}/\sqrt{\frac{T_{a,obs}}{518.7}}\right)$<br><br>$T_{b,obs} = \frac{T_{a,obs}}{518.7} \cdot f_2\left(N_{2,obs}/\sqrt{\frac{T_{a,obs}}{518.7}}\right)$<br><br>where the functions $f_1$ and $f_2$ are obtained from curves supplied by PWA (see Fig 5)<br><br>Subscript "obs" refers to actual values or values observed for a particular test and mode.<br><br>Subscript "ref" refers to reference values, arbitrarily chosen as the average values for the baseline tests (and at take-off power where appropriate)<br><br>The reference values were:<br>$F/A_{,ref}$ = 0.0185<br>$N_{2,ref}$ = = 7430 rpm<br>$P_{a,ref}$ = 29.97 in Hg abs<br>$T_{a,ref}$ = 519.2 deg R |

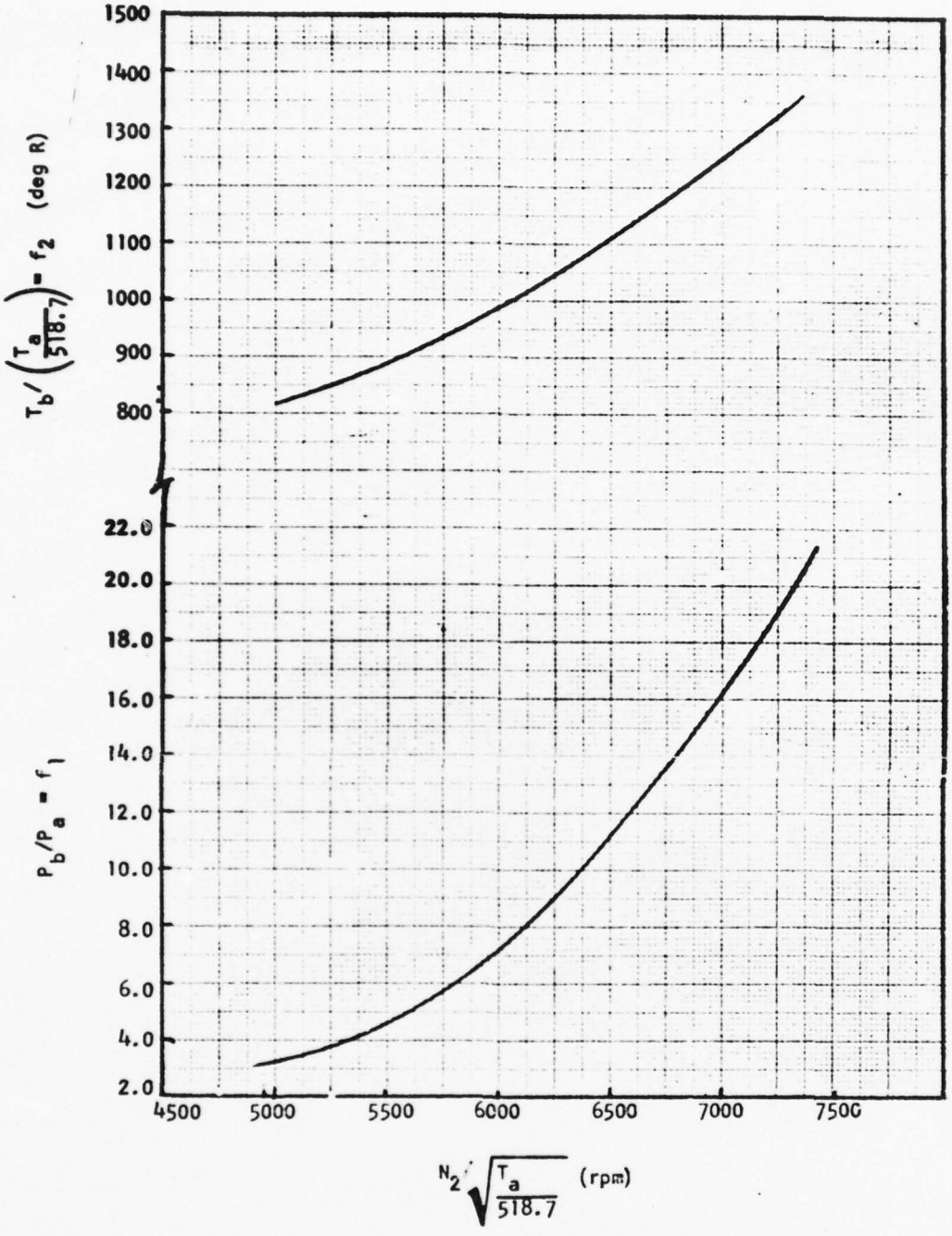



Figure 5. Typical Production Engine Performance

| Name | Symbol | Description |
|---|---|---|
| FHC | $F_{HC}$ | HC emission factor<br>$F_{HC} = \left[\frac{P_{b,obs}}{P_{b,ref}}\right]^{1.8} \left[\frac{T_{b,obs}}{T_{b,ref}}\right]^{1/2} \cdot e^{0.00417\,(T_{b,obs} - T_{b,ref})}$ |
| FNO | $F_{NO}$ | NO emission factor<br>$F_{NO} = \left[\frac{P_{b,obs}}{P_{b,ref}}\right]^{1/2} \cdot e^{\{0.00444\,(T_{b,obs} - T_{b,ref}) - 19H\}}$ |
| STD FCO | $(F_{CO})_{std}$ | Corrected CO emission factor<br>$(F_{CO})_{std} = \left[\frac{P_{b,std}}{P_{b,ref}}\right]^{3/4} \cdot \left[\frac{T_{b,std}}{T_{b,ref}}\right]^{1/2} \cdot e^{\frac{T_{b,std}/\{400 - T_{a,std}(F/A_{obs}/T_{a,obs}) \times 10^4\}}{T_{b,ref}/(400 - F/A_{ref} \times 10^4)}}$<br>*where:*<br>$P_{b,std} = P_{a,std} \cdot f_1\left(N_{2,std}/\sqrt{\frac{T_{a,std}}{518.7}}\right)$<br>$T_{b,std} = \frac{T_{a,std}}{518.7} \cdot f_2\left(N_{2,std}/\sqrt{\frac{T_{a,std}}{518.7}}\right)$<br>The values of the engine operating parameters in the standardized emission factors may be obtained by assuming that corrected thrust remains constant. Therefore,<br>$\frac{F/A}{T_a}$ and $\frac{N_2}{T_a}$<br>remain constant, and the equations for $T_{b,std}$ and $P_{b,std}$ should be modified to read:<br>$P_{b,std} = P_{a,std} \cdot f_1\left(N_{2,obs}/\sqrt{\frac{T_{a,obs}}{518.7}}\right)$ |

| Name | Symbol | Description |
|---|---|---|
| STD FCO Continued | | $T_{b,std} = f_2\left(N_{2,obs} / \sqrt{\frac{T_{a,obs}}{518.7}}\right)$<br>Subscript "std" refers to standard day conditions (i.e., 518.7 deg R, 29.92 in Hg abs and 0.0 lbm $H_2O$ lbm dry air), or a value corrected to standard day condition. |
| STD FHC | $(F_{HC})_{std}$ | Corrected HC emission index<br>$(F_{HC})_{std} = \left[\frac{P_{b,std}}{P_{b,ref}}\right]^{1.8} \cdot \left[\frac{T_{b,std}}{T_{b,ref}}\right]^{1/2} \cdot e^{0.00417\,(T_{b,std} - T_{b,ref})}$ |
| STD FNO | $(F_{NO})_{std}$ | Corrected NO emission index<br>$(F_{NO})_{std} = \left[\frac{P_{b,std}}{P_{b,ref}}\right]^{1/2} \cdot e^{0.00444\,(T_{b,std} - T_{b,ref})}$ |
| API | | Specific gravity of jet fuel measured at 60 deg F using "Relative Density or Density of Liquid-Balance Method" and converted to API gravity using a conversion table. |
| H/C RATIO | a | Hydrogen-carbon ratio as determined using a Sanda-Carlo Erba Model 1100 elemental analyzer and the indium sample encapsulation technique. |
| FIA | | Fluorescent Indicator Adsorption - Fuel samples were analyzed for paraffin, olefin, and aromatic content using the ASTM Method D1319-70. |

## 4. EMISSIONS AND ANALYSIS DATA

The data which appears on the following pages consists of actual test data as well as calculated values which were used for analysis purposes. In examining this data, certain points should be noted, as listed below:

1. Data has been rounded off to no more than 4 significant figures.
2. In some instances, the NO analyzer gave higher readings than the $NO_x$ analyzer. In these cases, the $NO_x$ emission index and the NREC corrected emission index were set equal to the corresponding NO values. The $NO_x$ concentration and the FAA corrected emission index were not changed.
3. In certain tests, smoke data could not be obtained for a particular mode. Values of 0.0 are printed in the tables for these cases.
4. The JT9D-3A engines dropped out of the program at a rapid rate. For that reason, after the 1200 Hour test series, it was decided to test the remaining engines every 300 hours. In addition, units 21 and 23-25 were added to the program.
5. Unit 18 was removed from the program early and then returned. However, due to the nature of the maintenance performed (see Section 2), it was assigned a new unit number, number 22.
6. For the baseline test of unit 21 no mode 1 data was obtained, and for the 600 Hour test of unit 17, no mode 4 data was obtained. These units have been left out of the relevant tables.
7. For the 600 Hour test of unit 12, $N_2$ data was not available. Mean values were substituted instead.

8. The calibration gas concentrations for NO and $NO_x$ were questionable for the nominal 50 ppm bottle for tests conducted between October 10, 1975 and June 14, 1976; and for the nominal 200 ppm bottle for tests conducted between November 18, 1975 and April 22, 1976. The test data was processed in two different ways: the first assuming the stated concentrations were correct; and the second using calculated values for the concentrations. This is discussed in detail in Appendix IV of Volume I. In the following tables, the concentrations and emission indices of NO and $NO_x$ are based on the stated calibration gas concentrations, while the NREC corrected emission indices are based on the calculated values.

9. The following items of data were found to be erroneous and were changed in the data base:

| Unit Number | Test Series | Mode | Quantity |
|---|---|---|---|
| 1 | "600-Hour" | 5 | NI |
| 1 | "3000-Hour" | 2 | EGT |
| 6 | "3000-Hour" | 2 | EGT |
| 10 | "600-Hour" | 7 | EPR |
| 17 | "600-Hour" | 5 | NI |

## JT9D-3A • BASELINE TEST SERIES •

| UNIT | TSO HR | TSR HR | AMB TEMP DEG R | AMB PRESS IN HG | AMB HUMID LB H2O/AIR |
|---|---|---|---|---|---|
| 1 | 11776. | 0. | 521.7 | 29.91 | .009350 |
| 2 | 11144. | 0. | 521.7 | 29.91 | .009350 |
| 3 | 11796. | 0. | 521.7 | 29.91 | .009350 |
| 4 | 12531. | 0. | 520.2 | 29.98 | .008640 |
| 5 | 7733. | 0. | 520.2 | 29.98 | .008640 |
| 6 | 14240. | 0. | 520.2 | 29.98 | .008640 |
| 7 | 12394. | 0. | 520.2 | 29.98 | .008640 |
| 8 | 10938. | 0. | 523.7 | 29.97 | .009510 |
| 9 | 13685. | 0. | 523.7 | 29.97 | .009510 |
| 10 | 12508. | 0. | 520.2 | 30.03 | .008470 |
| 11 | 14058. | 0. | 514.7 | 29.97 | .007700 |
| 12 | 13525. | 0. | 520.2 | 30.05 | .008470 |
| 13 | 12125. | 0. | 517.2 | 30.04 | .008140 |
| 14 | 10403. | 0. | 517.2 | 30.04 | .008140 |
| 15 | 7423. | 0. | 516.2 | 30.00 | .008270 |
| 16 | 12537. | 0. | 516.2 | 30.00 | .008270 |
| 17 | 12332. | 0. | 516.2 | 30.00 | .008270 |
| 18 | 11924. | 0. | 518.2 | 30.07 | .007790 |
| 19 | 11274. | 0. | 518.2 | 30.08 | .007780 |
| 20 | 8223. | 0. | 516.2 | 30.07 | .008240 |
| 22 | 12033. | 0. | 514.2 | 30.13 | .006610 |
| 23 | 14379. | 0. | 511.7 | 29.94 | .007280 |
| 24 | 12803. | 0. | 508.7 | 30.10 | .006310 |
| 25 | 13519. | 0. | 523.7 | 29.99 | .006670 |

## JT9D-3A * BASELINE TEST SERIES *

MODE 1

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | -26.00 | -63.20 | -25.93 | -63.02 |
| 2 | 28.00 | -66.50 | 27.92 | 66.31 |
| 3 | 30.50 | 65.50 | 30.41 | 65.31 |
| 4 | 27.50 | 65.50 | 27.46 | 65.41 |
| 5 | 28.50 | 64.50 | 28.46 | 64.41 |
| 6 | 27.00 | 64.50 | 26.96 | 64.41 |
| 7 | 30.00 | 65.00 | 29.96 | 64.91 |
| 8 | 27.50 | 65.20 | 27.37 | 64.89 |
| 9 | 28.20 | 64.20 | 28.07 | 63.89 |
| 10 | 28.00 | 64.50 | 27.96 | 64.41 |
| 11 | 30.50 | 65.40 | 30.50 | 65.40 |
| 12 | 27.50 | 65.00 | 27.46 | 64.91 |
| 13 | 29.00 | 66.00 | 29.04 | 66.10 |
| 14 | 30.00 | 66.00 | 30.04 | 66.10 |
| 15 | 30.00 | 64.50 | 30.07 | 64.66 |
| 16 | 28.00 | 64.80 | 28.07 | 64.96 |
| 17 | 27.00 | -63.50 | 27.07 | 63.65 |
| 18 | 28.50 | 65.00 | 28.51 | 65.03 |
| 19 | 28.00 | 65.00 | 28.01 | 65.03 |
| 20 | 29.00 | 64.70 | 29.07 | 64.86 |
| 22 | 28.50 | 65.50 | 28.62 | 65.79 |
| 23 | 27.00 | 65.00 | 27.18 | 65.44 |
| 24 | 29.00 | 65.00 | 29.28 | 65.64 |
| 25 | 29.00 | 65.50 | 28.86 | 65.19 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 1

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | FPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 1750. | .8710 | .9470 | 1154. | 1.020 | -2806. |
| 2 | 1900. | .8840 | -.7700 | 1188. | 1.020 | 3827. |
| 3 | 2000. | -.5560 | .8690 | 1143. | 1.020 | 3502. |
| 4 | 1800. | .8320 | -.7800 | 1136. | 1.015 | 3537. |
| 5 | 2000. | .8040 | .9460 | 1125. | 1.020 | 3226. |
| 6 | 1850. | .8450 | .8830 | 1149. | 1.020 | 3226. |
| 7 | 2000. | .8230 | .9320 | 1192. | 1.020 | 3376. |
| 8 | 1800. | .8180 | .8120 | 1165. | 1.020 | 3372. |
| 9 | 1900. | .8390 | .8870 | 1158. | 1.015 | 3073. |
| 10 | 1840. | -.6370 | .8990 | -1214. | 1.020 | 3210. |
| 11 | 1850. | .8250 | .8100 | 1145. | 1.020 | 3514. |
| 12 | 1930. | .7600 | .8840 | 1202. | -1.010 | 3358. |
| 13 | 2000. | .8130 | .8410 | 1183. | -1.010 | 3742. |
| 14 | -2100. | .8090 | .8900 | 1201. | 1.020 | 3742. |
| 15 | 2000. | .7570 | .9460 | 1134. | -1.030 | 3289. |
| 16 | 1950. | .8500 | .9000 | 1140. | 1.020 | 3379. |
| 17 | 1800. | .8180 | .9340 | 1133. | 1.020 | 2989. |
| 18 | 1900. | .8300 | .8630 | 1149. | 1.020 | 3393. |
| 19 | 1900. | .7750 | .8630 | 1151. | 1.020 | 3392. |
| 20 | 1950. | .8500 | .9010 | 1129. | -1.010 | 3340. |
| 22 | 2000. | .9140 | .8660 | 1152. | 1.020 | 3631. |
| 23 | 1800. | .9490 | .8380 | 1199. | 1.020 | 3542. |
| 24 | 1900. | .8410 | .8520 | 1124. | 1.020 | 3585. |
| 25 | 1800. | .8310 | .7860 | 1143. | -1.025 | 3453. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 1

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 1754. | .8660 | .9420 | 1147. | -2805. |
| 2 | 1905. | .8790 | -.7650 | 1181. | 3825. |
| 3 | 2005. | -.5520 | .8640 | 1137. | 3501. |
| 4 | 1800. | .8300 | -.7770 | 1133. | 3532. |
| 5 | 2000. | .8010 | .9430 | 1122. | 3222. |
| 6 | 1850. | .8420 | .8810 | 1145. | 3222. |
| 7 | 2000. | .8210 | .9290 | 1188. | 3372. |
| 8 | 1806. | .8110 | .8050 | 1154. | 3366. |
| 9 | 1806. | .8300 | .8780 | 1147. | 3068. |
| 10 | 1849. | -.6350 | .8960 | 1210. | 3222. |
| 11 | 1853. | .8250 | .8100 | 1145. | 3530. |
| 12 | 1911. | .7580 | .8810 | 1199. | 3372. |
| 13 | 2005. | .8160 | .8440 | 1186. | 3756. |
| 14 | -2105. | .8110 | .8930 | 1204. | 3756. |
| 15 | 2000. | .7610 | .9500 | 1140. | 3297. |
| 16 | 1950. | .8540 | .9040 | 1145. | 3387. |
| 17 | 1800. | .8220 | .9390 | 1138. | 2996. |
| 18 | 1909. | .8310 | .8640 | 1150. | 3410. |
| 19 | 1909. | .7760 | .8640 | 1152. | 3410. |
| 20 | 1955. | .8540 | .9060 | 1134. | 3357. |
| 22 | 2005. | .9220 | .8740 | 1162. | 3655. |
| 23 | 1789. | .9620 | .8500 | -1216. | 3544. |
| 24 | 1893. | .8570 | .8690 | 1146. | 3607. |
| 25 | 1813. | .8230 | -.7780 | 1152. | 3461. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 1

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.682 | 807.2 | 205.8 | 12.9 | 17.4 |
| 2 | 1.737 | 718.3 | 146.8 | 11.6 | 17.9 |
| 3 | -.992 | -1190.4 | 163.0 | 10.5 | 15.8 |
| 4 | 1.610 | 808.2 | 186.1 | 12.3 | 17.4 |
| 5 | 1.591 | 584.7 | 123.8 | 13.6 | 19.2 |
| 6 | 1.624 | 824.1 | 219.0 | 11.0 | 17.7 |
| 7 | 1.607 | 729.9 | 155.9 | 8.5 | 17.2 |
| 8 | 1.579 | 764.8 | 186.3 | 15.0 | 17.3 |
| 9 | 1.632 | 709.0 | 161.3 | 15.7 | 17.6 |
| 10 | -1.204 | 696.4 | 192.7 | 13.0 | 15.2 |
| 11 | 1.619 | 669.7 | 147.6 | 11.0 | 19.4 |
| 12 | 1.595 | 598.3 | 91.9 | 15.4 | -20.9 |
| 13 | 1.595 | 618.3 | 146.4 | 11.3 | 17.6 |
| 14 | 1.615 | -509.3 | 87.1 | 15.1 | 19.3 |
| 15 | -1.441 | 798.0 | 216.5 | 10.9 | 15.5 |
| 16 | 1.641 | 804.0 | 202.3 | 14.3 | 17.3 |
| 17 | 1.595 | 751.6 | 171.7 | 11.6 | 14.3 |
| 18 | 1.641 | 674.9 | 114.1 | 13.9 | 16.8 |
| 19 | 1.496 | 744.8 | 182.3 | 13.3 | 16.1 |
| 20 | 1.648 | 743.7 | 188.9 | 10.4 | 16.9 |
| 22 | 1.779 | 803.7 | 195.7 | 16.9 | 19.4 |
| 23 | 1.823 | 841.3 | 268.7 | 12.6 | 15.8 |
| 24 | 1.688 | -500.9 | 84.9 | 11.1 | 19.5 |
| 25 | 1.679 | -408.0 | -65.4 | 14.8 | -20.7 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * BASELINE TEST SERIES *

MODE 1

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2909. | 88.88 | 38.94 | 2.33 | 3.14 | .65 |
| 2 | 2959. | 77.85 | 27.34 | 2.07 | 3.18 | 2.67 |
| 3 | -2699. | -206.09 | 48.48 | 3.00 | -4.51 | 0.00 |
| 4 | 2915. | 93.15 | 36.84 | 2.33 | 3.29 | .53 |
| 5 | 2983. | 69.80 | 25.39 | 2.66 | 3.76 | 2.70 |
| 6 | 2898. | 93.60 | 42.74 | 2.05 | 3.30 | 1.89 |
| 7 | 2943. | 85.08 | 31.27 | 1.62 | 3.28 | 2.01 |
| 8 | 2908. | 89.64 | 37.52 | 2.88 | 3.32 | 0.00 |
| 9 | 2937. | 81.18 | 31.73 | 2.95 | 3.31 | .27 |
| 10 | -2854. | 105.03 | 49.94 | 3.21 | 3.76 | 1.33 |
| 11 | 2957. | 77.86 | 29.48 | 2.09 | 3.71 | 1.59 |
| 12 | 2983. | 75.50 | 19.91 | 3.19 | -4.34 | 3.90 |
| 13 | 2955. | 72.91 | 29.66 | 2.18 | 3.40 | 1.96 |
| 14 | 3008. | 60.38 | -17.73 | 2.95 | 3.75 | .67 |
| 15 | 2872. | 101.21 | 47.16 | 2.28 | 3.23 | .93 |
| 16 | 2910. | 90.73 | 39.21 | 2.66 | 3.20 | 1.97 |
| 17 | 2921. | 91.69 | 34.60 | 2.24 | 2.75 | 2.53 |
| 18 | 2978. | 77.94 | 22.63 | 2.64 | 3.19 | 1.72 |
| 19 | 2911. | 92.23 | 38.78 | 2.70 | 3.28 | 2.38 |
| 20 | 2923. | 83.94 | 36.64 | 1.93 | 3.13 | 1.72 |
| 22 | 2931. | 84.27 | 35.25 | 2.91 | 3.33 | 1.96 |
| 23 | 2892. | 84.97 | 46.61 | 2.09 | 2.61 | 3.28 |
| 24 | -3025. | 57.13 | -16.64 | 2.07 | 3.65 | 1.04 |
| 25 | -3042. | -47.04 | -12.96 | 2.80 | 3.92 | -4.35 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * BASELINE TEST SERIES *

MODE 1

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .3870 | .2260 | -2.4970 | .3790 | .2210 | -2.9220 |
| 2 | .4680 | -.3040 | 2.9760 | .4580 | .2970 | 3.4790 |
| 3 | -.3410 | .2730 | 2.8050 | -.3350 | .2670 | 3.2810 |
| 4 | .4190 | .2720 | 2.8280 | .4150 | .2700 | 3.2990 |
| 5 | .3950 | .2440 | 2.6650 | .3820 | .2420 | 3.1100 |
| 6 | .3980 | .2440 | 2.6650 | .3940 | .2420 | 3.1100 |
| 7 | .4040 | .2580 | 2.7460 | .4000 | .2560 | 3.2030 |
| 8 | .4100 | .2640 | 2.7640 | .3960 | .2550 | 3.2000 |
| 9 | .3930 | .2390 | 2.6120 | .3800 | .2310 | 3.0250 |
| 10 | -.3410 | .2470 | 2.6800 | -.3360 | .2420 | 3.1100 |
| 11 | .4140 | .2710 | 2.8520 | .4140 | .2700 | 3.2980 |
| 12 | .3850 | .2610 | 2.7620 | .3800 | .2560 | 3.2030 |
| 13 | .4250 | .2890 | 2.9180 | .4280 | .2910 | 3.4360 |
| 14 | .4230 | .2890 | 2.9180 | .4270 | .2910 | 3.4360 |
| 15 | .3690 | .2450 | 2.6540 | .3750 | .2490 | 3.1560 |
| 16 | .4050 | .2530 | 2.7020 | .4120 | .2570 | 3.2130 |
| 17 | .3680 | .2250 | -2.5200 | .3740 | .2280 | 2.9960 |
| 18 | .4060 | .2610 | 2.7810 | .4060 | .2590 | 3.2270 |
| 19 | .3890 | .2610 | 2.7810 | .3890 | .2590 | 3.2270 |
| 20 | .4030 | .2520 | 2.6900 | .4090 | .2540 | 3.1940 |
| 22 | .4460 | .2750 | 2.8920 | .4600 | .2810 | 3.3740 |
| 23 | .4410 | .2570 | 2.7410 | .4660 | .2710 | 3.3070 |
| 24 | .4020 | .2590 | 2.7720 | .4310 | .2770 | 3.3450 |
| 25 | .4230 | .2750 | 2.9760 | .4080 | .2640 | 3.2570 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * BASELINE TEST SERIES *

### MODE 1

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO ET LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 90.78 | 39.79 | 2.72 | 3.67 | .65 |
| 2 | 79.59 | 27.95 | 2.42 | 3.72 | 1.38 |
| 3 | -209.93 | 49.57 | 3.51 | -5.27 | 0.00 |
| 4 | 94.05 | 37.18 | 2.72 | 3.84 | .53 |
| 5 | 70.45 | 25.62 | 3.11 | 4.38 | .68 |
| 6 | 94.49 | 43.12 | 2.39 | 3.85 | 1.89 |
| 7 | 85.88 | 31.50 | 1.89 | 3.83 | 2.01 |
| 8 | 92.77 | 38.85 | 3.34 | 3.85 | 0.00 |
| 9 | 84.02 | 32.84 | 3.42 | 3.83 | .27 |
| 10 | -106.33 | 50.84 | 3.73 | 4.36 | 1.33 |
| 11 | 77.93 | 29.57 | 2.42 | 4.30 | 1.59 |
| 12 | 76.50 | 20.29 | 3.70 | -5.03 | -3.90 |
| 13 | 72.30 | 29.53 | 2.57 | 4.01 | .54 |
| 14 | 59.87 | -17.65 | 3.47 | 4.41 | .67 |
| 15 | 99.61 | 46.49 | 2.71 | 3.85 | .93 |
| 16 | 89.21 | 38.65 | 3.16 | 3.81 | 1.34 |
| 17 | 90.20 | 34.11 | 2.67 | 3.27 | 2.53 |
| 18 | 77.92 | 22.75 | 3.07 | 3.71 | 1.72 |
| 19 | 92.24 | 39.00 | 3.14 | 3.80 | 1.78 |
| 20 | 82.69 | 36.28 | 2.29 | 3.72 | .94 |
| 22 | 81.78 | 34.48 | 3.65 | 4.18 | 1.96 |
| 23 | 80.44 | 44.25 | 2.71 | 3.39 | -3.28 |
| 24 | -53.27 | -15.58 | 2.68 | 4.73 | 1.04 |
| 25 | -48.84 | -13.51 | 3.29 | 4.61 | 1.99 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 2

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | -30.00 | -67.00 | -29.91 | -66.81 |
| 2 | 32.50 | -70.50 | 32.41 | 70.30 |
| 3 | -36.30 | 69.70 | 36.20 | 69.50 |
| 4 | 33.00 | 70.00 | 32.95 | 69.90 |
| 5 | 34.00 | 69.50 | 33.95 | 69.40 |
| 6 | 33.00 | 69.20 | 32.95 | 69.10 |
| 7 | 35.00 | 69.50 | 34.95 | 69.40 |
| 8 | 31.5. | 69.00 | 31.35 | 68.67 |
| 9 | 35.50 | 70.00 | 35.33 | 69.67 |
| 10 | 32.50 | 68.50 | 32.45 | 68.40 |
| 11 | -36.50 | -70.10 | -36.50 | 70.10 |
| 12 | 32.50 | 70.00 | 32.45 | 69.90 |
| 13 | 34.50 | -71.00 | 34.55 | -71.10 |
| 14 | 35.00 | -70.50 | 35.05 | -70.60 |
| 15 | 36.00 | 69.70 | 35.09 | 69.97 |
| 16 | 32.50 | 68.60 | 32.58 | 68.77 |
| 17 | 32.00 | 68.40 | 32.08 | 68.57 |
| 18 | 33.50 | 69.00 | 33.52 | 69.03 |
| 19 | 32.00 | 68.50 | 32.02 | 68.53 |
| 20 | 34.50 | 69.40 | 34.58 | 69.57 |
| 21 | 31.50 | -68.50 | 31.56 | 68.63 |
| 22 | 32.00 | 69.00 | 32.14 | 69.30 |
| 23 | 31.00 | 69.00 | 31.21 | 69.47 |
| 24 | 33.00 | 69.50 | 33.12 | 70.18 |
| 25 | 33.30 | 69.50 | 33.14 | 69.17 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 2

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | -2000. | .8730 | .7660 | 1154. | 1.020 | -3989. |
| 2 | 2250. | .8820 | .7570 | 1197. | 1.030 | 5209. |
| 3 | 2450. | -.5540 | .8280 | 1160. | 1.0.. | 4926. |
| 4 | 2200. | .8500 | .7380 | 1154. | 1.020 | 5071. |
| 5 | 2400. | .8230 | .8050 | 1133. | 1.030 | 4896. |
| 6 | 2250. | .8570 | .7710 | 1169. | 1.030 | 4791. |
| 7 | 2400. | .8470 | .8290 | 1199. | 1.030 | 4896. |
| 8 | 2100. | .8350 | .7250 | 1178. | 1.025 | 4642. |
| 9 | 2400. | .8550 | .8150 | 1179. | 1.020 | 4991. |
| 10 | 2200. | -.5940 | .7770 | -1223. | 1.020 | 4524. |
| 11 | 2400. | .8470 | .8060 | 1169. | 1.030 | 5127. |
| 12 | 2200. | .8590 | .7520 | 1212. | 1.020 | 5044. |
| 13 | 2400. | .8290 | .7950 | 1203. | 1.020 | -5476. |
| 14 | 2450. | .8250 | .8280 | 1215. | 1.030 | -5296. |
| 15 | 2500. | -.7900 | .8430 | 1160. | -1.040 | 5041. |
| 16 | 2200. | .8600 | .7530 | 1151. | 1.020 | 4656. |
| 17 | 2200. | .8070 | .7550 | 1151. | 1.020 | 4586. |
| 18 | 2250. | .8450 | .7680 | 1167. | 1.025 | 4738. |
| 19 | 2200. | -.7840 | .7540 | 1158. | 1.020 | 4562. |
| 20 | 2400. | .8760 | .8100 | 1156. | 1.020 | 4924. |
| 21 | -2000. | .8580 | -.6890 | -1158. | 1.025 | 4624. |
| 22 | 2250. | .9160 | .7660 | 1165. | 1.025 | 4822. |
| 23 | 2150. | .9350 | .7450 | 1192. | -1.075 | 4911. |
| 24 | 2250. | .8560 | .7580 | 1160. | 1.030 | 5134. |
| 25 | 2150. | .8730 | .7360 | 1188. | 1.030 | 4797. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 2

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PB F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | -2005. | .8680 | .7610 | 1147. | -3987. |
| 2 | 2256. | .8770 | .7530 | 1190. | 5207. |
| 3 | 2456. | -.5510 | .8240 | 1153. | 4925. |
| 4 | 2200. | .8480 | .7360 | 1151. | 5065. |
| 5 | 2400. | .8210 | .8030 | -1129. | 4890. |
| 6 | 2250. | .8540 | .7680 | 1165. | 4785. |
| 7 | 2400. | .8450 | .8260 | 1196. | 4890. |
| 8 | 2107. | .8270 | .7180 | 1166. | 4634. |
| 9 | 2408. | .8470 | .8070 | 1168. | 4983. |
| 10 | 2211. | -.5920 | .7740 | -1219. | 4540. |
| 11 | 2404. | .8470 | .8060 | 1169. | 5136. |
| 12 | 2212. | .8560 | .7500 | 1208. | 5065. |
| 13 | 2406. | .8320 | .7970 | 1206. | -5497. |
| 14 | 2456. | .8270 | .8300 | -1219. | -5317. |
| 15 | 2500. | -.7940 | .8470 | 1165. | 5054. |
| 16 | 2200. | .8640 | .7560 | 1156. | 4668. |
| 17 | 2200. | .8110 | .7590 | 1156. | 4598. |
| 18 | 2260. | .8460 | .7610 | 1168. | 4762. |
| 19 | 2211. | -.7840 | .7550 | 1159. | 4587. |
| 20 | 2406. | .8810 | .8140 | 1162. | 4949. |
| 21 | -1995. | .8620 | -.6920 | -1162. | 4621. |
| 22 | 2256. | .9240 | .7730 | 1175. | 4855. |
| 23 | 2137. | .9480 | .7550 | 1208. | 4915. |
| 24 | 2242. | .8730 | .7730 | 1182. | 5165. |
| 25 | 2165. | .8650 | .7290 | 1177. | 4809. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A - BASELINE TEST SERIES

MODE 2

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.717 | 661.1 | 155.2 | 13.1 | 20.0 |
| 2 | 1.762 | 556.0 | 99.5 | 11.9 | 21.4 |
| 3 | -1.004 | -1199.4 | 113.9 | 11.9 | 21.5 |
| 4 | 1.696 | 570.4 | 104.9 | 12.5 | 22.1 |
| 5 | 1.662 | 429.9 | 75.6 | 15.5 | 23.1 |
| 6 | 1.690 | 632.0 | 148.4 | 11.2 | 21.0 |
| 7 | 1.691 | 572.6 | 99.9 | 8.9 | 20.4 |
| 8 | 1.643 | 623.5 | 135.3 | 15.0 | 20.5 |
| 9 | 1.719 | 472.7 | 76.2 | 17.4 | 23.2 |
| 10 | -1.143 | 562.1 | 135.3 | 12.1 | 19.7 |
| 11 | 1.711 | 438.6 | 73.5 | 12.7 | -25.3 |
| 12 | 1.738 | 445.3 | 56.9 | 16.5 | 24.7 |
| 13 | 1.668 | 423.1 | 84.6 | 12.4 | 22.1 |
| 14 | 1.672 | 375.7 | 55.9 | 16.0 | 22.4 |
| 15 | -1.551 | 635.8 | 136.9 | 11.6 | 20.4 |
| 16 | 1.692 | 658.9 | 151.1 | 15.0 | 19.7 |
| 17 | 1.608 | 565.9 | 93.5 | 10.8 | 19.3 |
| 18 | 1.70 | 508.0 | 69.0 | 17.2 | 21.7 |
| 19 | -1.538 | 623.4 | 144.1 | 12.8 | 18.7 |
| 20 | 1.749 | 548.9 | 109.6 | 10.2 | 21.5 |
| 21 | 1.752 | -363.7 | 43.7 | 10.5 | 21.4 |
| 22 | 1.819 | 649.9 | 129.7 | 16.2 | 22.2 |
| 23 | 1.862 | 680.4 | 162.6 | 15.1 | 18.3 |
| 24 | 1.737 | 416.1 | 56.6 | 11.3 | 21.4 |
| 25 | 1.787 | -301.1 | 37.9 | 17.5 | -26.0 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 2

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2962. | 72.59 | 29.28 | 2.36 | 3.61 | 2.22 |
| 2 | 3010. | 60.44 | 18.59 | 2.13 | 3.83 | 2.25 |
| 3 | -2734. | -208.08 | -33.96 | 3.40 | -6.14 | 1.94 |
| 4 | 3006. | 64.33 | 20.32 | 2.32 | 4.09 | -0.00 |
| 5 | 3043. | 50.08 | 15.13 | 2.96 | 4.42 | 1.60 |
| 6 | 2973. | 70.75 | 28.55 | 2.06 | 3.87 | .27 |
| 7 | 3008. | 64.80 | 19.42 | 1.65 | 3.78 | 2.80 |
| 8 | 2966. | 71.62 | 26.69 | 2.82 | 3.87 | 2.54 |
| 9 | 3028. | 52.99 | 14.67 | 3.20 | 4.27 | .67 |
| 10 | -2910. | -91.03 | -37.63 | 3.23 | -5.24 | 1.19 |
| 11 | 3043. | 49.66 | 14.30 | 2.36 | -4.70 | 1.72 |
| 12 | 3049. | 49.70 | 10.91 | 3.03 | 4.54 | 1.69 |
| 13 | 3029. | 48.90 | 14.80 | 2.35 | 4.19 | -0.00 |
| 14 | 3052. | 43.66 | 11.15 | 3.05 | 4.28 | 1.32 |
| 15 | 2961. | 77.22 | 28.57 | 2.32 | 4.07 | 1.33 |
| 16 | 2966. | 73.50 | 28.95 | 2.75 | 3.60 | .66 |
| 17 | 3002. | 67.26 | 19.10 | 2.10 | 3.77 | 3.33 |
| 18 | 3035. | 57.62 | 13.45 | 3.21 | 4.05 | .94 |
| 19 | 2960. | 76.33 | 30.30 | 2.57 | 3.76 | 1.32 |
| 20 | 3005. | 60.03 | 20.59 | 1.84 | 3.85 | 1.60 |
| 21 | 3074. | 40.60 | 8.37 | 1.93 | 3.92 | .65 |
| 22 | 2990. | 67.97 | 23.31 | 2.79 | 3.81 | 1.95 |
| 23 | 2965. | 69.72 | 28.63 | 2.55 | 3.09 | 2.09 |
| 24 | 3057. | 46.61 | 10.88 | 2.08 | 3.94 | 1.95 |
| 25 | -3080. | -33.02 | 7.15 | 3.15 | -4.68 | .79 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D 3A • BASELINE TEST SERIES •

MODE 2

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | -.4800 | -.3240 | -3.0780 | -.4700 | -.3170 | -3.5990 |
| 2 | .6450 | -.5760 | 4.1320 | .6490 | .5620 | 4.8260 |
| 3 | -.4710 | .5020 | 3.8360 | -.4620 | .4900 | 4.4810 |
| 4 | .6150 | .5300 | 3.9890 | .6090 | .5250 | 4.6510 |
| 5 | .5720 | .4860 | 3.8070 | .5660 | .4820 | 4.4390 |
| 6 | .5720 | .4620 | 3.7050 | .5670 | .4580 | 4.3210 |
| 7 | .5840 | .4860 | 3.8070 | .5780 | .4820 | 4.4390 |
| 8 | .5530 | .4440 | 3.6150 | .5340 | .4280 | 4.1780 |
| 9 | .6170 | .5230 | 3.9400 | .5950 | .5040 | 4.5510 |
| 10 | -.4380 | .4180 | 3.5270 | -.4330 | .4110 | 4.0900 |
| 11 | .6210 | .5450 | 4.0970 | .6200 | .5440 | 4.7390 |
| 12 | .6220 | .5360 | 4.0130 | .6130 | .5250 | 4.6510 |
| 13 | -.6680 | -.6410 | -4.4100 | .6740 | -.6440 | -5.1970 |
| 14 | .6340 | -.5890 | -4.2130 | .6400 | -.5920 | -4.9640 |
| 15 | .5690 | .5150 | 3.8950 | .5790 | .5230 | 4.6380 |
| 16 | .5460 | .4280 | 3.5360 | .5560 | .4350 | 4.2090 |
| 17 | -.5130 | .4150 | 3.4810 | .5220 | .4210 | 4.1440 |
| 18 | .5590 | .4550 | 3.7030 | .5590 | .4530 | 4.2980 |
| 19 | -.5090 | .4220 | 3.5610 | -.5090 | .4190 | 4.1330 |
| 20 | .5970 | .4910 | 3.7940 | .6070 | .4960 | 4.5100 |
| 21 | .5390 | -.4190 | -3.6580 | .5480 | -.4260 | -4.1660 |
| 22 | .5960 | .4620 | 3.7650 | .6150 | .4730 | 4.3980 |
| 23 | .6040 | .4620 | 3.6950 | .6390 | .4880 | 4.4690 |
| 24 | .5940 | .5140 | 3.9390 | .6400 | .5510 | 4.7740 |
| 25 | .5990 | .4830 | 3.9750 | .5750 | .4620 | 4.3430 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 2

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 74.20 | 29.95 | 2.76 | 4.23 | 2.22 |
| 2 | 61.85 | 19.03 | 2.49 | 4.47 | 2.25 |
| 3 | -212.15 | -34.76 | 3.98 | -7.17 | 1.90 |
| 4 | 64.99 | 20.51 | 2.70 | 4.77 | -0.00 |
| 5 | 50.58 | 15.27 | 3.45 | 5.16 | .68 |
| 6 | 71.47 | 28.82 | 2.40 | 4.51 | .27 |
| 7 | 65.46 | 19.61 | 1.92 | 4.41 | 1.09 |
| 8 | 74.26 | 27.69 | 3.27 | 4.47 | 2.54 |
| 9 | 54.99 | 15.22 | 3.70 | 4.93 | .67 |
| 10 | -92.17 | -38.33 | 3.74 | -6.07 | 1.19 |
| 11 | 49.70 | 14.35 | 2.73 | 5.44 | 1.08 |
| 12 | 50.42 | 11.13 | 3.51 | 5.26 | 1.35 |
| 13 | 48.45 | 16.71 | 2.77 | 4.94 | -0.00 |
| 14 | 43.26 | 11.09 | 3.60 | 5.05 | 1.32 |
| 15 | 75.89 | 28.13 | 2.76 | 4.85 | 1.33 |
| 16 | 72.20 | 28.51 | 3.28 | 4.29 | .66 |
| 17 | 66.11 | 18.81 | 2.50 | 4.49 | -3.33 |
| 18 | 57.59 | 13.52 | 3.73 | 4.70 | .94 |
| 19 | 76.33 | 30.48 | 2.99 | 4.37 | 1.32 |
| 20 | 59.06 | 20.36 | 2.18 | 4.58 | 1.60 |
| 21 | 39.94 | 8.23 | 2.36 | 4.79 | .65 |
| 22 | 65.87 | 22.77 | 3.50 | 4.78 | .93 |
| 23 | 65.86 | 27.11 | 3.31 | 4.01 | 1.99 |
| 24 | 43.25 | 10.15 | 2.71 | 5.12 | 1.95 |
| 25 | -34.38 | 7.47 | 3.70 | 5.49 | .79 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 3

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 90.80 | 95.30 | 90.54 | 95.03 |
| 2 | 91.00 | -96.50 | 90.74 | -96.22 |
| 3 | 90.40 | 95.00 | 90.14 | 94.73 |
| 4 | 90.50 | -97.00 | 90.37 | -96.86 |
| 5 | 90.00 | 95.00 | 89.87 | 94.86 |
| 6 | 89.50 | 95.20 | 89.37 | 95.06 |
| 7 | 90.00 | 94.00 | 89.87 | 93.86 |
| 8 | 89.00 | 95.70 | 88.57 | 95.24 |
| 9 | 91.00 | 95.20 | 90.56 | 94.74 |
| 10 | 88.50 | 95.50 | 88.37 | 95.36 |
| 11 | 90.50 | 95.00 | 90.50 | 95.00 |
| 12 | 90.50 | 95.50 | 90.37 | 95.36 |
| 13 | 91.00 | 95.50 | 91.13 | 95.64 |
| 14 | -91.50 | 94.50 | -91.63 | 94.64 |
| 15 | 89.50 | 94.30 | 89.72 | 94.53 |
| 16 | 91.00 | 94.90 | 91.22 | 95.13 |
| 17 | 91.00 | 95.00 | 91.22 | 95.23 |
| 18 | 91.00 | 94.60 | 91.04 | 94.65 |
| 19 | 90.00 | 95.40 | 90.04 | 95.45 |
| 20 | 89.50 | 94.30 | 89.72 | 94.53 |
| 21 | 88.50 | 93.00 | 88.67 | 93.18 |
| 22 | 90.00 | 94.00 | 90.39 | 94.41 |
| 23 | 89.00 | 94.50 | 89.61 | 95.14 |
| 24 | 88.50 | -92.30 | 89.37 | 93.20 |
| 25 | -87.50 | -92.50 | -87.08 | -92.06 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 3

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT4 DEG R | FPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 15800. | 1.8410 | 1.9220 | 1869. | 1.400 | 40914. |
| 2 | 16100. | 1.8740 | 1.9720 | 1892. | 1.400 | 40914. |
| 3 | 15500. | 1.8070 | 1.9770 | 1853. | 1.400 | 40914. |
| 4 | -15000. | 1.8800 | 1.8290 | 1878. | 1.400 | 40955. |
| 5 | 15700. | 1.8140 | 1.9040 | 1854. | 1.400 | 40955. |
| 6 | 15700. | 1.8810 | 1.9000 | 1845. | 1.400 | 40955. |
| 7 | 15500. | 1.9320 | 1.8740 | 1844. | 1.400 | 40955. |
| 8 | 15700. | 1.9140 | 1.9390 | -1921. | 1.400 | 40968. |
| 9 | 16200. | 1.9290 | 1.9890 | 1896. | 1.400 | 40968. |
| 10 | -16900. | -1.4980 | -2.0750 | 1914. | 1.400 | 40750. |
| 11 | 15900. | 1.8230 | 1.9240 | 1880. | 1.400 | 40832. |
| 12 | 15800. | 1.7740 | 1.9190 | 1880. | 1.400 | 40730. |
| 13 | 16300. | 1.8890 | 1.9930 | -1939. | -1.410 | -41401. |
| 14 | 16000. | 1.8010 | 1.9120 | 1854. | -1.410 | -41401. |
| 15 | 15800. | 1.8060 | 1.9130 | 1862. | 1.400 | 40798. |
| 16 | 15900. | 1.8890 | 1.9360 | 1881. | 1.400 | 40798. |
| 17 | 16300. | 1.8130 | 1.9800 | 1872. | 1.400 | 40798. |
| 18 | -16400. | 1.7950 | 1.9840 | 1865. | 1.400 | 40696. |
| 19 | -16400. | 1.9160 | -2.0050 | 1905. | 1.400 | 40682. |
| 20 | 15700. | 1.8350 | 1.9160 | 1872. | -1.395 | 40368. |
| 21 | 15500. | 1.8670 | -1.8810 | -1820. | 1.400 | 40927. |
| 22 | 16000. | 1.8170 | 1.9230 | 1851. | 1.400 | 40622. |
| 23 | 15450. | 1.8530 | 1.8670 | 1849. | 1.400 | 40873. |
| 24 | -15100. | 1.8080 | -1.8040 | 1829. | 1.400 | 40655. |
| 25 | -15050. | 1.8700 | 1.8420 | 1874. | -1.395 | 40475. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 3

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 15840. | 1.8300 | 1.9110 | 1858. | 40900. |
| 2 | 16141. | 1.8630 | 1.9610 | 1881. | 40900. |
| 3 | 15540. | 1.7970 | 1.8660 | 1842. | 40900. |
| 4 | -15002. | 1.8740 | -1.8240 | 1872. | 40900. |
| 5 | 15702. | 1.8090 | 1.8990 | 1849. | 40900. |
| 6 | 15702. | 1.8750 | 1.8940 | 1840. | 40900. |
| 7 | 15502. | 1.9260 | 1.8690 | 1838. | 40900. |
| 8 | 15749. | 1.8950 | 1.9210 | 1903. | 40900. |
| 9 | 16251. | 1.9110 | 1.9700 | 1878. | 40900. |
| 10 | -16987. | -1.4940 | -2.0690 | 1908. | 40900. |
| 11 | 15826. | 1.8230 | 1.9240 | 1880. | 40900. |
| 12 | 15889. | -1.7690 | 1.9140 | 1874. | 40900. |
| 13 | 16339. | 1.8940 | -1.9990 | -1945. | -41560. |
| 14 | 16039. | 1.8060 | 1.9170 | 1860. | -41560. |
| 15 | 15801. | 1.8140 | 1.9220 | 1871. | 40900. |
| 16 | 15901. | 1.8980 | 1.9450 | 1890. | 40900. |
| 17 | 16301. | 1.8220 | 1.9900 | 1881. | 40900. |
| 18 | -16474. | 1.79[illegible] | 1.9860 | 1867. | 40900. |
| 19 | -16480. | 1.9170 | -2.0070 | 1907. | 40900. |
| 20 | 15741. | 1.8440 | 1.9250 | 1881. | -40570. |
| 21 | 15460. | 1.8740 | -1.8580 | 1827. | 40900. |
| 22 | 16040. | 1.8330 | 1.9400 | 1867. | 40900. |
| 23 | 15356. | 1.8780 | 1.8920 | 1874. | 40900. |
| 24 | -15044. | 1.8430 | 1.8390 | 1865. | 40900. |
| 25 | 15158. | 1.8520 | -1.8240 | 1858. | -40570. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 3

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 3.885 | 12.7 | -39.0 | 328.0 | -385.9 |
| 2 | 3.965 | 12.0 | 13.0 | 313.7 | 340.7 |
| 3 | 3.808 | 12.5 | -55.7 | 256.9 | -212.4 |
| 4 | 3.982 | 10.5 | 22.3 | 306.3 | 309.3 |
| 5 | 3.836 | 11.7 | -37.5 | 291.2 | 324.1 |
| 6 | 3.980 | 11.9 | 33.9 | 287.0 | -363.5 |
| 7 | 4.096 | 11.7 | 18.4 | 260.0 | 276.1 |
| 8 | 4.037 | 13.0 | -39.4 | 300.4 | 297.2 |
| 9 | 4.072 | 15.6 | 32.6 | 317.0 | 323.7 |
| 10 | -3.151 | 9.4 | 32.8 | 305.6 | 318.5 |
| 11 | 3.855 | 12.9 | 26.6 | 296.9 | 302.8 |
| 12 | 3.745 | 7.0 | 29.2 | 295.9 | 313.4 |
| 13 | 3.982 | 12.4 | -39.8 | -358.0 | -365.5 |
| 14 | 3.799 | 13.3 | 25.3 | 306.2 | 304.1 |
| 15 | 3.816 | 12.9 | 33.9 | 244.5 | 254.7 |
| 16 | 3.998 | 13.9 | 26.0 | 293.1 | 295.9 |
| 17 | 3.837 | 12.8 | 16.8 | 297.4 | 304.9 |
| 18 | 3.800 | 13.0 | 16.2 | 298.1 | 299.4 |
| 19 | 4.054 | 12.4 | -40.3 | 329.3 | 351.6 |
| 20 | 3.877 | 12.4 | 26.1 | 270.2 | 278.1 |
| 21 | 3.959 | 8.7 | 2.7 | 339.0 | 335.5 |
| 22 | 3.845 | 17.8 | 15.9 | 298.3 | 295.1 |
| 23 | 3.920 | 9.2 | 3.5 | 272.8 | 273.9 |
| 24 | 3.831 | 8.8 | 2.5 | 314.7 | 315.3 |
| 25 | 3.955 | 10.4 | 2.0 | -357.2 | 360.0 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 3

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | -3145. | .65 | -3.45 | 27.77 | -32.66 | 13.91 |
| 2 | 3152. | .61 | 1.13 | 26.07 | 28.31 | 12.80 |
| 3 | -3141. | .66 | -5.03 | 22.16 | 22.16 | 9.91 |
| 4 | 3157. | .53 | 1.93 | 25.39 | 25.63 | 5.52 |
| 5 | 3153. | .61 | -3.37 | 25.02 | 27.84 | 9.72 |
| 6 | 3154. | .60 | 2.94 | 23.78 | 30.12 | 10.67 |
| 7 | 3158. | .57 | 1.55 | 20.96 | 22.25 | 13.55 |
| 8 | -3141. | .65 | -3.35 | 24.43 | 24.43 | 7.03 |
| 9 | -3143. | .77 | 2.75 | 25.57 | 26.12 | -35.75 |
| 10 | -3145. | .60 | -3.57 | -31.89 | -33.24 | 19.03 |
| 11 | 3153. | .67 | 2.38 | 25.38 | 25.90 | 13.29 |
| 12 | 3148. | .38 | 2.69 | 26.00 | 27.54 | -0.00 |
| 13 | -3141. | .62 | -3.43 | 29.53 | 30.14 | 6.67 |
| 14 | -3144. | .70 | 2.29 | 26.49 | 26.49 | 15.66 |
| 15 | 3151. | .68 | 3.06 | 21.11 | 21.99 | 11.18 |
| 16 | 3153. | .70 | 2.25 | 24.16 | 24.40 | 12.00 |
| 17 | 3155. | .67 | 1.51 | 25.57 | 26.22 | 20.53 |
| 18 | 3158. | .69 | 1.47 | 25.90 | 26.01 | 13.77 |
| 19 | 3152. | .62 | -3.43 | 26.77 | 28.59 | -0.00 |
| 20 | 3149. | .64 | 2.32 | 22.94 | 23.61 | 10.44 |
| 21 | 3159. | .44 | .24 | 28.28 | 28.28 | 7.53 |
| 22 | 3155. | .93 | 1.42 | 25.59 | 25.59 | 16.34 |
| 23 | 3152. | .47 | .31 | 22.93 | 23.02 | 18.83 |
| 24 | 3159. | .46 | .23 | 27.13 | 27.18 | 5.88 |
| 25 | 3150. | .53 | .17 | -29.74 | 29.97 | 7.43 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 3

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 98.6140 | 100.4060 | 84.8740 | 92.1570 | 96.8940 | 97.8570 |
| 2 | -136.5620 | -132.3010 | -102.2370 | -127.1520 | -127.5680 | -117.7720 |
| 3 | 84.7980 | 93.7890 | 81.1320 | 79.4240 | 90.5270 | 93.5620 |
| 4 | -157.7190 | -154.2110 | -115.1160 | -152.4580 | -151.7040 | -133.2480 |
| 5 | 86.8650 | 94.8560 | 82.4380 | 84.2380 | 93.3840 | 95.4990 |
| 6 | 109.7360 | 99.2560 | 84.9490 | 106.2130 | 97.7090 | 98.4010 |
| 7 | 103.1770 | 75.3300 | 70.8810 | 99.7930 | 74.1860 | 82.1400 |
| 8 | -131.9630 | 107.7720 | 89.4480 | 116.8150 | 101.7440 | 101.0780 |
| 9 | 126.5140 | 96.2320 | 82.9730 | 111.9280 | 90.8990 | 93.8150 |
| 10 | -42.[illegible]400 | 107.1550 | 89.3480 | -41.3680 | 104.5280 | 102.9080 |
| 11 | 89.6160 | 96.6240 | 84.2810 | 89.7790 | 96.3340 | 97.4820 |
| 12 | 84.9730 | 107.2520 | 89.3780 | 82.1230 | 104.5280 | 102.9080 |
| 13 | 120.1150 | 109.9230 | 90.4050 | 124.8140 | 111.1840 | 107.2320 |
| 14 | 77.5520 | 87.7170 | 77.8530 | 80.2690 | 88.6940 | 92.3110 |
| 15 | 75.9720 | 84.3400 | 75.4670 | 80.5520 | 86.5100 | 90.8110 |
| 16 | 108.3580 | 96.6770 | 82.5680 | 115.5370 | 99.1970 | 99.3910 |
| 17 | 87.8300 | 98.8800 | 83.8100 | 93.2380 | 101.4630 | 100.8920 |
| 18 | 77.3270 | 89.1380 | 79.4520 | 78.1460 | 88.8710 | 92.43[illegible] |
| 19 | -128.4830 | 106.8850 | 89.5810 | -130.0890 | 106.5100 | 104.2030 |
| 20 | 82.8420 | 84.7200 | 75.5930 | 87.8160 | 86.5100 | 90.8110 |
| 21 | 71.2470 | 61.5790 | 64.4660 | 74.9680 | 63.1090 | 74.0000 |
| 22 | 75.0960 | 80.785[illegible] | 74.9110 | 83.1950 | 84.2030 | 89.2150 |
| 23 | 91.4820 | 91.5510 | 79.8560 | 108.8390 | 99.5250 | 99.6090 |
| 24 | 54.9160 | 57.0740 | -58.9460 | 68.8090 | 63.4560 | 74.2610 |
| 25 | 64.1910 | -51.5450 | -58.3360 | -57.3210 | -48.4800 | -62.5580 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 3

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO FI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | .70 | -3.58 | 32.02 | -37.46 | 13.91 |
| 2 | .65 | 1.17 | 30.03 | 32.61 | 12.80 |
| 3 | .70 | -5.21 | 25.55 | 25.55 | 9.91 |
| 4 | .55 | 1.96 | 29.39 | 29.67 | 5.52 |
| 5 | .63 | -3.42 | 28.98 | 32.25 | 9.72 |
| 6 | .62 | 2.98 | 27.54 | 34.89 | 10.67 |
| 7 | .59 | 1.58 | 24.28 | 25.78 | 13.55 |
| 8 | .73 | -3.55 | 27.61 | 27.61 | 5.62 |
| 9 | .87 | 2.91 | 28.91 | 29.53 | 14.06 |
| 10 | .61 | -3.66 | -36.73 | -38.28 | 15.18 |
| 11 | .67 | 2.38 | 29.36 | 29.95 | 12.18 |
| 12 | .39 | 2.76 | 29.93 | 31.70 | -0.00 |
| 13 | .60 | -3.39 | -35.02 | -35.75 | 6.67 |
| 14 | .68 | 2.26 | 31.41 | 31.41 | 11.65 |
| 15 | .64 | 2.98 | 25.40 | 26.46 | 9.30 |
| 16 | .65 | 2.19 | 29.08 | 29.37 | 9.07 |
| 17 | .63 | 1.47 | 30.78 | 31.56 | 14.57 |
| 18 | .68 | 1.48 | 30.13 | 31.26 | 11.05 |
| 19 | .61 | -3.44 | 31.14 | 33.25 | -0.00 |
| 20 | .60 | 2.27 | 27.56 | 28.37 | 10.44 |
| 21 | .42 | .23 | -35.08 | -35.08 | 6.99 |
| 22 | .84 | 1.37 | 30.47 | 30.47 | 11.11 |
| 23 | .39 | .29 | 30.91 | 31.03 | 15.83 |
| 24 | .37 | .20 | -36.94 | -37.00 | 5.46 |
| 25 | .59 | .18 | 34.47 | 34.74 | 5.87 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 4

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 85.40 | 92.80 | 85.15 | 92.53 |
| 2 | 84.50 | 94.00 | 84.26 | 93.73 |
| 3 | 85.30 | -94.70 | 85.05 | -94.43 |
| 4 | 85.50 | -94.50 | 85.38 | -94.36 |
| 5 | 85.00 | 94.00 | 84.88 | 93.86 |
| 6 | 94.50 | 93.00 | 84.38 | 92.87 |
| 7 | 83.50 | 92.00 | 83.39 | 91.87 |
| 8 | 85.00 | 93.70 | 84.59 | 93.25 |
| 9 | 85.00 | 93.50 | 84.59 | 93.05 |
| 10 | 83.30 | 93.50 | 83.18 | 93.37 |
| 11 | 85.50 | 93.30 | 85.50 | 93.30 |
| 12 | 85.50 | 93.80 | 85.38 | 93.66 |
| 13 | 84.00 | 93.50 | 84.12 | 93.64 |
| 14 | 85.50 | 92.50 | 85.62 | 92.63 |
| 15 | 84.50 | 92.60 | 84.70 | 92.82 |
| 16 | 86.00 | 92.70 | -86.21 | 92.92 |
| 17 | 85.00 | 92.80 | 85.21 | 93.02 |
| 18 | 85.00 | 92.70 | 85.04 | 92.74 |
| 19 | 84.00 | 92.60 | 84.04 | 92.64 |
| 20 | 84.00 | 93.00 | 84.20 | 93.22 |
| 21 | 83.00 | 91.50 | 83.16 | 91.68 |
| 22 | 84.50 | 93.00 | 84.87 | 93.41 |
| 23 | 83.50 | 92.30 | 84.07 | 92.93 |
| 24 | 82.50 | 91.20 | 83.31 | 92.09 |
| 25 | 83.80 | 91.90 | 83.40 | 91.46 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 4

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 12900. | 1.6190 | 1.7440 | 1764. | 1.310 | 34465. |
| 2 | 12800. | 1.6390 | 1.7050 | 1768. | -1.320 | -35252. |
| 3 | 12900. | 1.6250 | 1.7160 | 1763. | -1.320 | -35252. |
| 4 | 13000. | 1.6660 | 1.7650 | 1775. | 1.310 | 34499. |
| 5 | 13300. | 1.6220 | 1.7970 | 1757. | 1.310 | 34499. |
| 6 | 13000. | 1.6630 | 1.7510 | 1746. | 1.310 | 34499. |
| 7 | 12700. | 1.6930 | 1.7440 | 1761. | 1.300 | 33712. |
| 8 | 13100. | 1.6250 | 1.7910 | 1797. | 1.310 | 34511. |
| 9 | 13100. | 1.6530 | 1.8190 | 1795. | 1.300 | 33723. |
| 10 | 13100. | -1.5010 | 1.7900 | -1815. | 1.310 | 34327. |
| 11 | 13200. | 1.6410 | 1.7870 | 1775. | 1.310 | 34396. |
| 12 | 13150. | 1.5920 | 1.7790 | 1781. | 1.310 | 34310. |
| 13 | 12700. | 1.5980 | 1.7500 | 1790. | 1.300 | 33538. |
| 14 | 13250. | -1.5540 | 1.7730 | 1741. | 1.310 | 34321. |
| 15 | 13000. | 1.5760 | 1.7460 | 1750. | 1.310 | 34367. |
| 16 | 13300. | 1.6860 | 1.8020 | 1779. | 1.310 | 34367. |
| 17 | 13000. | 1.5740 | 1.7740 | 1750. | 1.300 | 33582. |
| 18 | 13100. | 1.5750 | 1.7790 | 1743. | 1.300 | 33499. |
| 19 | -13600. | 1.6870 | -1.8490 | 1800. | 1.310 | 34270. |
| 20 | 12800. | 1.6480 | 1.7520 | 1770. | 1.300 | 33499. |
| 21 | 12700. | 1.6250 | 1.6890 | -1709. | 1.310 | 34476. |
| 22 | 13250. | 1.6360 | 1.7720 | 1750. | 1.310 | 34219. |
| 23 | 12600. | 1.6590 | 1.6850 | 1732. | 1.310 | 34430. |
| 24 | 12300. | 1.5080 | -1.6270 | 1714. | 1.310 | 34247. |
| 25 | 12600. | 1.6980 | 1.7310 | 1775. | 1.300 | 33588. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 4

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 12933. | 1.6090 | 1.7340 | 1754. | 34453. |
| 2 | 12833. | 1.6300 | 1.6950 | 1758. | -35240. |
| 3 | 12933. | 1.6160 | 1.7060 | 1752. | -35240. |
| 4 | 13001. | 1.6610 | 1.7600 | 1770. | 34453. |
| 5 | 13301. | 1.6180 | 1.7920 | 1752. | 34453. |
| 6 | 13001. | 1.6590 | 1.7460 | 1741. | 34453. |
| 7 | 12701. | 1.6880 | 1.7390 | 1756. | 33667. |
| 8 | 13141. | 1.6090 | 1.7740 | 1780. | 34453. |
| 9 | 13141. | 1.6370 | 1.8010 | 1778. | 33667. |
| 10 | 13167. | -1.4970 | 1.7850 | -1809. | 34453. |
| 11 | 13222. | 1.6410 | 1.7870 | 1775. | 34453. |
| 12 | 13224. | 1.5870 | 1.7740 | 1775. | 34453. |
| 13 | 12730. | 1.6030 | 1.7550 | 1795. | 33667. |
| 14 | 13282. | -1.5590 | 1.7780 | 1746. | 34453. |
| 15 | 13001. | 1.5840 | 1.7540 | 1758. | 34453. |
| 16 | 13301. | 1.6940 | 1.8100 | 1787. | 34453. |
| 17 | 13001. | 1.5810 | 1.7820 | 1758. | 33667. |
| 18 | 13159. | 1.5760 | 1.7810 | 1744. | 33667. |
| 19 | -13666. | 1.6890 | -1.9510 | 1902. | 34453. |
| 20 | 12833. | 1.6560 | 1.7600 | 1778. | 33667. |
| 21 | 12667. | 1.6310 | 1.6960 | -1715. | 34453. |
| 22 | 13283. | 1.6500 | 1.7880 | 1765. | 34453. |
| 23 | 12523. | 1.6810 | 1.7080 | 1756. | 34453. |
| 24 | -12254. | 1.6190 | 1.6590 | 1748. | 34453. |
| 25 | 12690. | 1.6820 | 1.7150 | 1758. | 33667. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 4

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 3.409 | 12.6 | -29.7 | 215.3 | 241.4 |
| 2 | 3.460 | 10.4 | 9.7 | 190.5 | 206.6 |
| 3 | 3.420 | 12.5 | -40.7 | 171.5 | 159.1 |
| 4 | 3.521 | 10.5 | 18.8 | 201.6 | 205.7 |
| 5 | 3.425 | 10.9 | -28.9 | 198.7 | 227.8 |
| 6 | 3.514 | 11.2 | -27.9 | 191.5 | 243.3 |
| 7 | 3.580 | 12.2 | 15.8 | 171.8 | 186.9 |
| 8 | 3.424 | 12.5 | 14.0 | 189.9 | 191.8 |
| 9 | 3.482 | 12.9 | 18.9 | 200.3 | 206.7 |
| 10 | -3.162 | 5.2 | -20.2 | 226.5 | 232.9 |
| 11 | 3.469 | 13.0 | 9.8 | 209.3 | 219.3 |
| 12 | 3.355 | 6.6 | -21.4 | 203.8 | 218.4 |
| 13 | 3.364 | 11.3 | -21.0 | 208.8 | 215.0 |
| 14 | -3.272 | 10.3 | 13.7 | 186.3 | 187.6 |
| 15 | 3.328 | 10.2 | 14.8 | 160.3 | 167.5 |
| 16 | 3.564 | 9.9 | 12.9 | 193.1 | 199.8 |
| 17 | 3.323 | 11.9 | 10.6 | 184.5 | 190.8 |
| 18 | 3.32[illegible] | 10.8 | 9.6 | 193.6 | 196.2 |
| 19 | 3.567 | 10.3 | -22.4 | 222.0 | 236.9 |
| 20 | 3.477 | 11.9 | 17.8 | 184.5 | 198.3 |
| 21 | 3.437 | 7.8 | 1.4 | 228.1 | 226.6 |
| 22 | 3.457 | 17.1 | 9.4 | 214.5 | 212.5 |
| 23 | 3.503 | 8.8 | 1.8 | 188.1 | 187.2 |
| 24 | 3.358 | 8.7 | 1.7 | 211.6 | 209.0 |
| 25 | 3.585 | 7.8 | 2.9 | -255.2 | -254.0 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 4

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3147. | .74 | -2.99 | 20.77 | 23.29 | 10.35 |
| 2 | 3152. | .60 | .97 | 18.14 | 19.67 | 12.08 |
| 3 | -3144. | .73 | -4.09 | 16.47 | 16.47 | 7.19 |
| 4 | 3157. | .60 | 1.94 | 18.90 | 19.29 | 8.51 |
| 5 | 3154. | .64 | -2.91 | 19.13 | 21.93 | 10.14 |
| 6 | 3154. | .64 | -2.74 | 17.97 | 22.83 | 8.05 |
| 7 | 3157. | .68 | 1.53 | 15.84 | 17.23 | 13.96 |
| 8 | 3144. | .73 | 1.41 | 18.25 | 18.43 | 5.09 |
| 9 | -3145. | .74 | 1.86 | 18.92 | 19.52 | 14.70 |
| 10 | 3149. | .33 | -2.20 | -23.59 | -24.25 | 12.70 |
| 11 | 3157. | .75 | .98 | 19.91 | 20.86 | 10.93 |
| 12 | 3149. | .39 | -2.20 | 20.00 | 21.43 | -0.00 |
| 13 | -3144. | .67 | -2.14 | 20.40 | 21.02 | 3.73 |
| 14 | 3146. | .63 | 1.44 | 18.72 | 18.86 | 10.20 |
| 15 | 3155. | .62 | 1.54 | 15.89 | 16.61 | 9.01 |
| 16 | 3156. | .56 | 1.25 | 17.88 | 18.50 | 8.00 |
| 17 | 3156. | .72 | 1.10 | 18.32 | 18.94 | 16.12 |
| 18 | 3150. | .65 | .99 | 19.21 | 19.47 | 10.17 |
| 19 | 3156. | .58 | -2.16 | 20.53 | 21.91 | 12.23 |
| 20 | 3150. | .69 | 1.76 | 17.48 | 18.79 | 7.32 |
| 21 | 3159. | .46 | .14 | 21.92 | 21.92 | 4.58 |
| 22 | 3154. | .99 | .94 | 20.47 | 20.47 | 9.87 |
| 23 | 3152. | .51 | .17 | 17.70 | 17.70 | 14.38 |
| 24 | 3159. | .52 | .17 | 20.81 | 20.81 | 4.15 |
| 25 | 3150. | .44 | .28 | -23.44 | 23.44 | 3.76 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 4

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 35.2760 | 55.8550 | 58.0010 | 33.4260 | 53.9900 | 66.9900 |
| 2 | 45.6200 | -74.4170 | 69.7320 | 43.1350 | 71.8750 | 80.4720 |
| 3 | -49.7030 | -87.5600 | -77.5430 | 46.9890 | -84.5310 | -89.4420 |
| 4 | -53.3060 | -84.6000 | -76.4580 | -51.8900 | -83.3010 | -88.5870 |
| 5 | 44.0100 | -75.3300 | 70.8810 | 42.8900 | -74.1860 | 82.1400 |
| 6 | 40.8680 | 59.4130 | 60.8310 | 39.8160 | 58.5290 | 70.5190 |
| 7 | 37.2030 | 47.4240 | 52.6870 | 36.2410 | 46.7330 | 61.0980 |
| 8 | 41.5190 | 67.8540 | 66.0560 | 37.8730 | 64.1990 | 74.8180 |
| 9 | 42.8690 | 64.6880 | 64.0570 | 39.0400 | 61.2170 | 72.5710 |
| 10 | 30.8660 | 67.5670 | 66.0450 | 30.0420 | 65.9540 | 76.1270 |
| 11 | 41.1540 | 65.1380 | 65.1660 | 41.1960 | 64.9420 | 75.3730 |
| 12 | 39.7360 | 72.5950 | 69.1670 | 38.5920 | 70.7920 | 79.6840 |
| 13 | 38.7270 | 69.5560 | 66.9290 | 39.0160 | 70.3070 | 79.3310 |
| 14 | 29.5740 | 54.7630 | 57.4280 | 30.3550 | 55.3360 | 68.0460 |
| 15 | 31.6790 | 56.5410 | 58.2850 | 33.1740 | 57.9410 | 70.0660 |
| 16 | 41.6810 | 57.9210 | 59.1870 | 43.8530 | 59.3580 | 71.1540 |
| 17 | 32.5920 | 59.3290 | 60.1020 | 34.1330 | 60.8050 | 72.2580 |
| 18 | 31.9300 | 57.0250 | 59.5100 | 32.1680 | 56.8420 | 69.2160 |
| 19 | 40.8930 | 55.6920 | 58.6130 | 41.2370 | 55.4790 | 68.1570 |
| 20 | 40.1780 | 62.5170 | 62.0730 | 42.1360 | 63.7920 | 74.5130 |
| 21 | 29.6410 | 43.9750 | 52.0130 | 30.8520 | 45.0390 | 59.6470 |
| 22 | 39.3520 | 63.9580 | 64.3910 | 42.8470 | 66.5980 | 76.6040 |
| 23 | 36.9780 | 54.8540 | 57.2950 | 42.5510 | 59.4300 | 71.2090 |
| 24 | 26.5280 | 44.0010 | 49.9980 | 31.8320 | 48.8050 | 62.8280 |
| 25 | 37.1560 | 45.8820 | 54.1250 | 33.7110 | 43.1760 | 58.0750 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 4

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | .78 | -3.10 | 23.99 | 26.90 | 10.35 |
| 2 | .63 | 1.01 | 20.94 | 22.70 | 12.08 |
| 3 | .78 | -4.24 | 20.54 | 20.54 | 7.19 |
| 4 | .62 | 1.87 | 21.89 | 22.34 | 8.51 |
| 5 | .66 | -2.95 | 22.17 | 25.41 | 10.14 |
| 6 | .66 | -2.78 | 20.84 | 26.47 | 8.05 |
| 7 | .70 | 1.55 | 18.36 | 19.98 | 13.73 |
| 8 | .80 | 1.49 | 20.67 | 20.88 | 5.09 |
| 9 | .82 | -1.97 | 21.43 | 22.12 | 9.58 |
| 10 | .74 | -2.25 | -27.18 | 27.95 | 10.31 |
| 11 | .75 | .98 | 23.02 | 24.13 | 9.96 |
| 12 | .41 | -2.26 | 23.04 | 24.69 | -0.00 |
| 13 | .65 | -2.12 | 24.18 | 24.91 | 3.16 |
| 14 | .61 | 1.43 | 22.18 | 22.35 | 9.13 |
| 15 | .59 | 1.50 | 19.10 | 19.96 | 8.64 |
| 16 | .53 | 1.22 | 21.49 | 22.24 | 8.00 |
| 17 | .69 | 1.07 | 22.02 | 22.77 | 14.06 |
| 18 | .65 | 1.00 | 22.34 | 22.65 | 10.10 |
| 19 | .58 | -2.17 | 23.88 | 25.48 | 9.94 |
| 20 | .65 | 1.73 | 20.98 | 22.54 | 7.32 |
| 21 | .44 | .14 | -27.18 | 27.18 | 4.58 |
| 22 | .91 | .90 | 24.35 | 24.35 | 9.87 |
| 23 | .44 | .16 | 21.99 | 21.99 | 11.32 |
| 24 | .43 | .15 | 26.15 | 26.15 | 3.90 |
| 25 | .48 | .30 | -27.18 | 27.18 | -2.37 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 5

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 73.70 | 88.80 | -73.49 | 88.54 |
| 2 | 75.60 | 90.50 | 75.38 | 90.24 |
| 3 | 76.40 | -91.50 | 76.18 | -91.24 |
| 4 | 74.00 | 90.50 | 73.89 | 90.37 |
| 5 | 75.50 | -91.00 | 75.39 | -90.87 |
| 6 | 74.50 | 89.50 | 74.39 | 89.37 |
| 7 | 75.00 | 89.00 | 74.99 | 88.87 |
| 8 | 75.50 | 90.20 | 75.14 | 89.77 |
| 9 | 75.50 | 90.00 | 75.14 | 89.57 |
| 10 | 74.50 | 90.00 | 74.39 | 89.87 |
| 11 | 76.00 | 88.50 | 76.00 | 88.50 |
| 12 | 76.00 | 90.50 | 75.89 | 90.37 |
| 13 | 75.00 | 90.00 | 75.11 | 90.13 |
| 14 | 76.00 | 89.00 | 76.11 | 89.13 |
| 15 | 74.00 | 88.40 | 74.18 | 88.61 |
| 16 | 76.00 | 89.80 | 76.18 | 90.02 |
| 17 | 76.00 | 89.50 | 76.18 | 89.72 |
| 18 | 76.00 | 89.70 | 76.04 | 89.74 |
| 19 | 75.50 | 89.40 | 75.54 | 89.44 |
| 20 | 75.00 | 90.20 | 75.18 | 90.42 |
| 21 | 75.00 | 89.50 | 75.15 | 89.67 |
| 22 | 75.00 | 89.50 | 75.33 | 89.89 |
| 23 | 73.50 | 89.20 | 74.00 | 89.81 |
| 24 | 74.00 | 88.50 | 74.72 | 89.37 |
| 25 | 75.50 | 89.10 | 75.14 | 88.67 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 5

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 9000. | 1.3470 | 1.5260 | 1579. | 1.180 | 23648. |
| 2 | 9450. | 1.3870 | 1.5300 | 1620. | 1.200 | 25809. |
| 3 | 9500. | 1.3760 | 1.5360 | 1615. | 1.200 | 25809. |
| 4 | 8900. | 1.3470 | 1.5160 | 1590. | 1.180 | 23672. |
| 5 | -10200. | 1.4030 | -1.6210 | 1624. | 1.210 | 26622. |
| 6 | 9200. | 1.3900 | 1.5220 | 1592. | 1.190 | 24753. |
| 7 | 9400. | 1.3970 | 1.5650 | 1611. | 1.190 | 24753. |
| 8 | 8900. | -1.2870 | 1.5250 | 1608. | 1.180 | 23680. |
| 9 | 9400. | 1.3630 | 1.5810 | 1642. | 1.190 | 24761. |
| 10 | 9300. | -1.2520 | 1.5540 | 1640. | 1.190 | 24629. |
| 11 | 9300. | 1.3570 | 1.5460 | 1617. | 1.190 | 24679. |
| 12 | 9500. | 1.3390 | 1.5790 | 1622. | 1.190 | 24617. |
| 13 | 9300. | 1.3270 | 1.5450 | 1622. | 1.190 | 24625. |
| 14 | 9300. | -1.2570 | 1.5230 | 1577. | 1.190 | 24625. |
| 15 | 8850. | -1.2530 | 1.4430 | -1561. | 1.190 | 24658. |
| 16 | 9400. | 1.3880 | 1.5560 | 1606. | 1.190 | 24658. |
| 17 | 9600. | 1.3200 | 1.5880 | 1602. | 1.190 | 24658. |
| 18 | 9450. | 1.3440 | 1.5670 | 1599. | 1.195 | 25134. |
| 19 | 9600. | 1.3770 | 1.5930 | 1620. | 1.190 | 24589. |
| 20 | 9500. | 1.4020 | 1.5300 | 1620. | 1.200 | 25671. |
| 21 | 9500. | 1.3810 | 1.4850 | 1579. | 1.210 | 26604. |
| 22 | 9400. | 1.3650 | 1.5380 | 1583. | 1.190 | 24552. |
| 23 | 8850. | 1.3990 | 1.4520 | 1575. | 1.190 | 24703. |
| 24 | 9200. | 1.3590 | -1.4260 | 1575. | 1.210 | 26428. |
| 25 | 9400. | 1.4650 | 1.5040 | 1631. | 1.205 | 26132. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 5

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 9023. | 1.3390 | 1.5170 | -1570. | 23640. |
| 2 | 9474. | 1.3790 | 1.5210 | 1611. | 25800. |
| 3 | 9524. | 1.3680 | 1.5270 | 1606. | 25800. |
| 4 | 8901. | 1.3430 | 1.5110 | 1585. | 23640. |
| 5 | -10201. | 1.3990 | -1.6160 | 1619. | 26587. |
| 6 | 9201. | 1.3860 | 1.5170 | 1587. | 24720. |
| 7 | 9401. | 1.3930 | 1.5610 | 1607. | 24720. |
| 8 | 8928. | -1.2750 | 1.5100 | 1592. | 23640. |
| 9 | 9429. | 1.3500 | 1.5660 | 1626. | 24720. |
| 10 | 9348. | -1.2480 | 1.5500 | 1635. | 24720. |
| 11 | 9316. | 1.3570 | 1.5460 | 1617. | 24720. |
| 12 | 9553. | 1.3340 | 1.5740 | 1617. | 24720. |
| 13 | 9322. | 1.3310 | 1.5500 | 1627. | 24720. |
| 14 | 9322. | -1.2600 | 1.5280 | 1582. | 24720. |
| 15 | 8851. | -1.2590 | 1.4500 | -1568. | 24720. |
| 16 | 9401. | 1.3940 | 1.5640 | 1614. | 24720. |
| 17 | 9601. | 1.3260 | 1.5960 | 1610. | 24720. |
| 18 | 9694. | 1.3450 | 1.5690 | 1600. | 25260. |
| 19 | 9647. | 1.3790 | 1.5940 | 1622. | 24720. |
| 20 | 9525. | 1.4090 | 1.5380 | 1628. | 25800. |
| 21 | 9475. | 1.3860 | 1.4910 | 1585. | 26587. |
| 22 | 9423. | 1.3770 | 1.5510 | 1596. | 24720. |
| 23 | 8796. | 1.4190 | 1.4720 | 1597. | 24720. |
| 24 | 9166. | 1.3960 | 1.4540 | 1606. | 26587. |
| 25 | 9467. | 1.4510 | 1.4920 | 1616. | 26193. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 5

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 2.929 | 18.9 | -23.1 | 102.4 | 119.1 |
| 2 | 2.920 | 15.2 | 7.6 | 105.4 | 116.2 |
| 3 | 2.890 | 17.3 | -27.1 | 91.1 | -80.0 |
| 4 | 2.938 | 18.3 | -13.5 | 101.5 | 107.1 |
| 5 | 2.957 | 14.0 | -18.4 | 116.2 | -140.0 |
| 6 | 2.928 | 16.1 | -21.2 | 105.2 | 131.7 |
| 7 | 2.946 | 17.4 | -12.8 | 95.7 | 104.5 |
| 8 | -2.702 | 18.9 | 11.3 | 95.5 | 97.3 |
| 9 | 2.864 | 16.1 | -12.3 | 106.6 | 111.0 |
| 10 | -2.630 | 14.9 | -12.6 | 111.6 | 117.2 |
| 11 | 2.860 | 17.4 | 7.2 | 106.7 | 112.9 |
| 12 | 2.814 | -7.8 | -13.5 | 113.5 | 124.5 |
| 13 | 2.786 | 17.7 | -13.6 | 107.3 | 111.7 |
| 14 | -2.638 | 14.8 | 8.8 | 93.1 | 95.8 |
| 15 | -2.637 | 20.0 | 9.2 | -80.6 | -85.0 |
| 16 | 2.925 | 18.1 | 8.1 | 97.4 | 104.6 |
| 17 | 2.780 | 18.6 | 7.8 | 100.9 | 107.0 |
| 18 | 2.934 | 11.0 | 6.7 | 111.0 | 113.7 |
| 19 | 2.904 | 15.1 | 10.9 | 111.2 | 120.1 |
| 20 | 2.952 | 17.3 | 9.5 | 106.6 | 116.5 |
| 21 | 2.913 | 9.1 | .9 | -133.1 | 131.3 |
| 22 | 2.876 | 22.3 | 5.0 | 114.0 | 115.6 |
| 23 | 2.947 | 16.8 | 1.3 | 97.8 | 99.7 |
| 24 | 2.947 | 14.6 | 1.3 | 118.0 | 117.9 |
| 25 | 3.085 | 12.5 | 2.2 | -145.4 | -143.8 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • BASELINE TEST SERIES •

### MODE 5

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | -3146. | 1.34 | -2.80 | 11.90 | 13.84 | 8.68 |
| 2 | 3152. | 1.05 | .89 | 11.90 | 13.11 | 8.82 |
| 3 | -3145. | 1.20 | -3.23 | 10.36 | 10.36 | 4.82 |
| 4 | 3156. | 1.30 | -1.64 | 11.81 | 12.45 | 3.33 |
| 5 | 3155. | .95 | -2.14 | 12.97 | -15.62 | 5.35 |
| 6 | 3154. | 1.10 | -2.49 | 11.84 | 14.82 | 6.17 |
| 7 | 3157. | 1.19 | -1.50 | 10.72 | 11.71 | 10.20 |
| 8 | -3145. | 1.40 | 1.44 | 11.62 | 11.84 | 2.80 |
| 9 | -3146. | 1.12 | -1.48 | 12.24 | 12.75 | 6.47 |
| 10 | 3150. | 1.13 | -1.65 | 13.97 | 14.67 | 5.46 |
| 11 | 3156. | 1.22 | .87 | 12.31 | 13.02 | 6.53 |
| 12 | 3150. | .56 | -1.65 | 13.29 | 14.57 | 6.13 |
| 13 | -3145. | 1.27 | -1.68 | 12.66 | 13.19 | 2.24 |
| 14 | -3146. | 1.12 | 1.14 | 11.61 | 11.94 | 6.58 |
| 15 | 3155. | 1.53 | 1.20 | 10.09 | 10.63 | 2.93 |
| 16 | 3156. | 1.24 | .95 | 10.98 | 11.80 | 5.33 |
| 17 | 3156. | 1.34 | .97 | 11.98 | 12.70 | 10.53 |
| 18 | 3159. | .78 | .82 | 12.93 | 13.25 | 6.53 |
| 19 | 3158. | .04 | 1.30 | 12.64 | 13.65 | 8.27 |
| 20 | 3151. | 1.18 | 1.11 | 11.90 | 13.00 | 2.68 |
| 21 | 3159. | .62 | .10 | -15.09 | 15.09 | 4.55 |
| 22 | 3156. | 1.56 | .60 | 13.08 | 13.27 | 9.33 |
| 23 | 3151. | 1.14 | .15 | 10.94 | 11.15 | 9.74 |
| 24 | 3158. | 1.03 | .15 | 13.59 | 13.59 | 2.61 |
| 25 | 3149. | .81 | .25 | -15.52 | -15.52 | 3.01 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 5

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 11.6530 | 24.9020 | 34.8370 | 11.1800 | 24.1220 | 40.3290 |
| 2 | 15.7170 | 35.0000 | 43.0660 | 15.0440 | 33.8740 | 49.8070 |
| 3 | 17.6050 | -42.7190 | -48.8570 | 16.8440 | -41.3230 | -56.4730 |
| 4 | 14.6250 | 35.2750 | 43.6450 | 14.3390 | 34.7750 | 50.6340 |
| 5 | 17.3560 | -38.9840 | -46.4830 | 17.0000 | -38.4260 | -53.9250 |
| 6 | 13.8320 | 28.8440 | 38.4840 | 13.5570 | 28.4420 | 44.6590 |
| 7 | 13.1080 | 26.1210 | 36.1850 | 12.8490 | 25.7610 | 41.9960 |
| 8 | 12.5750 | 32.4230 | 41.2730 | 11.7540 | 30.7780 | 46.9130 |
| 9 | 14.0060 | 31.1470 | 40.2500 | 13.0470 | 29.5730 | 45.7590 |
| 10 | 11.6510 | 32.1620 | 41.1900 | 11.3960 | 31.4260 | 47.5250 |
| 11 | 11.4670 | 23.9790 | 34.6760 | 11.4680 | 23.9070 | 40.1070 |
| 12 | 14.4520 | 35.6260 | 43.9050 | 14.1120 | 34.7750 | 50.6340 |
| 13 | 13.3170 | 32.8150 | 41.4890 | 13.5900 | 33.1350 | 49.1240 |
| 14 | 10.3670 | 26.8600 | 36.6240 | -10.5640 | 27.1150 | 43.3510 |
| 15 | -9.5390 | 23.9170 | 33.9080 | -9.8600 | 24.4620 | 40.6780 |
| 16 | 14.4580 | 31.6410 | 40.3370 | 15.0120 | 32.3820 | 48.4220 |
| 17 | 12.3000 | 29.7590 | 38.8280 | 12.7440 | 30.4520 | 46.6040 |
| 18 | 13.1600 | 30.7270 | 40.2170 | 13.2250 | 30.6200 | 46.76[illegible] |
| 19 | 13.4340 | 28.9690 | 38.7590 | 13.5000 | 28.8500 | 45.0570 |
| 20 | 15.7150 | 34.4620 | 42.5030 | 16.2990 | 35.1170 | 50.9470 |
| 21 | 13.6560 | 29.4900 | 40.4320 | 14.1000 | 30.1820 | 46.3460 |
| 22 | 13.4020 | 30.4000 | 40.1830 | 14.2820 | 31.5580 | 47.6500 |
| 23 | 13.6930 | 28.7580 | 38.1040 | 15.2610 | 31.0290 | 47.1510 |
| 24 | 11.7100 | 25.7410 | 35.7010 | 13.5430 | 28.4130 | 44.6300 |
| 25 | 15.0560 | 26.2450 | 38.0930 | 13.9240 | 24.7590 | 40.9800 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 5

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 1.39 | -2.89 | 13.78 | 16.02 | 8.52 |
| 2 | 1.09 | .92 | 13.76 | 15.16 | 8.82 |
| 3 | 1.26 | -3.34 | 12.94 | 12.94 | 4.82 |
| 4 | 1.32 | -1.66 | 13.70 | 14.44 | 3.33 |
| 5 | .97 | -2.17 | 15.04 | -18.12 | 5.35 |
| 6 | 1.13 | -2.53 | 13.74 | 17.20 | 6.17 |
| 7 | 1.21 | -1.52 | 12.44 | 13.59 | 9.43 |
| 8 | 1.50 | -1.52 | 13.20 | 13.46 | 2.05 |
| 9 | 1.20 | -1.56 | 15.03 | 15.66 | 4.30 |
| 10 | 1.16 | -1.69 | 16.12 | 16.93 | 5.46 |
| 11 | 1.22 | .87 | 14.24 | 15.06 | 5.54 |
| 12 | -.57 | -1.69 | 15.33 | 16.80 | 5.74 |
| 13 | 1.25 | -1.67 | 14.99 | 15.61 | 2.24 |
| 14 | 1.10 | 1.13 | 13.74 | 14.14 | 6.56 |
| 15 | 1.48 | 1.17 | 12.10 | 12.75 | 2.93 |
| 16 | 1.20 | .93 | 13.19 | 14.17 | 5.33 |
| 17 | 1.29 | .95 | 14.37 | 15.25 | 8.70 |
| 18 | .78 | .82 | 15.04 | 15.41 | 6.53 |
| 19 | 1.04 | 1.31 | 14.69 | 15.87 | 8.27 |
| 20 | 1.14 | 1.09 | 14.26 | 15.58 | 2.68 |
| 21 | -.61 | .10 | -17.30 | 17.30 | -.78 |
| 22 | 1.46 | .58 | 15.51 | 15.73 | 7.68 |
| 23 | 1.02 | .14 | 13.53 | 13.79 | 9.14 |
| 24 | .89 | .14 | 16.99 | 16.99 | 2.61 |
| 25 | .88 | .26 | 16.70 | 16.70 | 2.93 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 6

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 55.50 | 82.30 | 55.34 | 82.06 |
| 2 | 55.50 | 85.00 | 55.34 | 84.76 |
| 3 | 55.50 | 84.70 | 55.34 | 84.46 |
| 4 | 58.00 | -86.00 | 57.92 | -85.88 |
| 5 | 57.50 | 84.50 | 57.42 | 84.38 |
| 6 | 57.50 | 85.00 | 57.42 | 84.88 |
| 7 | 58.00 | 83.50 | 57.92 | 83.38 |
| 8 | 56.00 | 84.30 | 55.73 | 83.90 |
| 9 | 59.00 | 85.00 | 58.72 | 84.59 |
| 10 | 55.00 | 84.00 | 54.92 | 83.88 |
| 11 | 57.00 | 82.50 | 57.00 | 82.50 |
| 12 | -59.50 | -86.00 | 59.41 | -85.88 |
| 13 | 58.00 | 85.00 | 58.08 | 85.12 |
| 14 | 57.50 | 84.00 | 57.58 | 84.12 |
| 15 | 56.00 | 82.50 | 56.14 | 82.70 |
| 16 | 58.00 | 84.50 | 58.14 | 84.70 |
| 17 | 58.00 | 83.90 | 58.14 | 84.10 |
| 18 | 59.00 | 84.80 | 59.03 | 84.84 |
| 19 | 57.00 | 83.80 | 57.03 | 83.84 |
| 20 | 58.50 | 85.00 | 58.64 | 85.21 |
| 21 | -52.50 | 82.00 | -52.60 | 82.16 |
| 22 | 56.00 | 84.50 | 56.24 | 84.87 |
| 23 | 54.50 | 84.00 | 54.87 | 84.57 |
| 24 | 54.50 | 82.00 | 55.03 | 82.80 |
| 25 | 54.90 | 82.80 | 54.64 | 82.40 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 6

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 4900. | 1.0720 | 1.1690 | 1356. | 1.080 | 12244. |
| 2 | 5000. | 1.0860 | 1.2120 | 1399. | 1.080 | 12244. |
| 3 | 4900. | 1.0520 | 1.1790 | 1379. | 1.080 | 12244. |
| 4 | 5400. | 1.1130 | 1.2710 | 1408. | 1.085 | -12947. |
| 5 | 5600. | 1.1000 | 1.2680 | 1392. | -1.090 | -13638. |
| 6 | 5200. | 1.1190 | 1.2590 | 1390. | 1.080 | 12256. |
| 7 | 5400. | 1.0980 | 1.3240 | 1424. | 1.080 | 12256. |
| 8 | 5000. | 1.0310 | 1.2090 | 1388. | 1.080 | 12260. |
| 9 | 5500. | 1.0730 | -1.3590 | -1444. | 1.080 | 12260. |
| 10 | 5000. | -.9030 | 1.2230 | 1435. | 1.080 | 12195. |
| 11 | 5100. | 1.0730 | 1.2270 | 1383. | 1.080 | 12220. |
| 12 | -5800. | 1.1140 | -1.4230 | -1439. | 1.080 | 12189. |
| 13 | 5500. | 1.0840 | 1.3450 | 1431. | 1.080 | 12193. |
| 14 | 5300. | -1.0120 | 1.2750 | 1388. | 1.080 | 12193. |
| 15 | 5100. | -1.0120 | 1.1370 | 1365. | -1.090 | -13586. |
| 16 | 5500. | 1.1240 | 1.3330 | 1403. | 1.080 | 12209. |
| 17 | 5500. | 1.0450 | 1.3250 | 1386. | 1.080 | 12209. |
| 18 | 5650. | 1.0710 | 1.2750 | 1401. | -1.090 | -13552. |
| 19 | 5300. | 1.0780 | 1.2740 | 1390. | 1.080 | 12175. |
| 20 | 5650. | 1.1570 | 1.3310 | 1426. | 1.085 | 12866. |
| 21 | -4600. | 1.0450 | -1.0870 | -1332. | 1.080 | 12248. |
| 22 | 5300. | 1.1080 | 1.2780 | 1403. | 1.080 | 12157. |
| 23 | 4800. | 1.1260 | 1.1500 | 1370. | 1.080 | 12232. |
| 24 | 4800. | 1.0710 | 1.1300 | -1338. | 1.080 | 12167. |
| 25 | 4800. | 1.1360 | 1.1540 | 1385. | 1.080 | 12211. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 6

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 4913. | 1.0660 | 1.1620 | -1348. | 12240. |
| 2 | 5013. | 1.0800 | 1.2050 | 1391. | 12240. |
| 3 | 4913. | 1.0460 | 1.1720 | 1371. | 12240. |
| 4 | 5401. | 1.1100 | 1.2680 | 1404. | 12930. |
| 5 | 5601. | 1.0970 | 1.2640 | 1388. | -13620. |
| 6 | 5201. | 1.1160 | 1.2550 | 1386. | 12240. |
| 7 | 5401. | 1.0950 | 1.3200 | 1420. | 12240. |
| 8 | 5016. | -1.0210 | 1.1980 | 1375. | 12240. |
| 9 | 5517. | 1.0630 | 1.3460 | 1430. | 12240. |
| 10 | 5026. | -.9000 | 1.2190 | 1431. | 12240. |
| 11 | 5109. | 1.0730 | 1.2270 | 1383. | 12240. |
| 12 | -5833. | 1.1110 | -1.4180 | 1434. | 12240. |
| 13 | 5513. | 1.0870 | 1.3490 | 1435. | 12240. |
| 14 | 5313. | -1.0150 | 1.2790 | 1392. | 12240. |
| 15 | 5100. | -1.0170 | 1.1430 | 1371. | -13620. |
| 16 | 5500. | 1.1300 | 1.3390 | 1409. | 12240. |
| 17 | 5500. | 1.0500 | 1.3320 | 1393. | 12240. |
| 18 | 5676. | 1.0720 | 1.2760 | 1402. | -13620. |
| 19 | 5326. | 1.0790 | 1.2760 | 1391. | 12240. |
| 20 | 5665. | 1.1630 | 1.3370 | 1433. | 12930. |
| 21 | -4588. | 1.0490 | -1.0920 | -1337. | 12240. |
| 22 | 5313. | 1.1180 | 1.2890 | 1415. | 12240. |
| 23 | 4771. | 1.1410 | 1.1660 | 1389. | 12240. |
| 24 | 4782. | 1.0920 | 1.1520 | 1364. | 12240. |
| 25 | 4834. | 1.1250 | 1.1430 | 1371. | 12240. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 6

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 2.238 | 85.4 | -19.4 | 41.9 | 53.1 |
| 2 | 2.273 | 77.4 | 7.9 | 43.3 | 55.6 |
| 3 | 2.194 | 94.3 | -21.1 | 36.1 | -37.6 |
| 4 | 2.335 | 70.5 | -12.0 | 49.3 | 59.2 |
| 5 | 2.303 | 49.3 | -27.5 | 46.4 | -65.3 |
| 6 | 2.343 | 82.9 | -17.9 | 45.5 | 57.6 |
| 7 | 2.302 | 74.5 | 11.5 | 38.3 | 50.6 |
| 8 | -2.150 | 98.4 | 10.6 | 39.8 | 48.1 |
| 9 | 2.244 | 59.7 | 9.6 | 45.8 | 52.4 |
| 10 | -1.882 | 81.1 | 11.5 | 44.1 | 54.9 |
| 11 | 2.250 | 62.7 | 6.6 | 47.3 | 56.0 |
| 12 | 2.336 | -32.6 | 8.4 | -56.5 | -65.1 |
| 13 | 2.265 | 73.1 | -12.3 | 49.5 | 58.4 |
| 14 | -2.116 | 54.4 | 7.2 | 43.9 | 51.2 |
| 15 | -2.113 | 113.8 | 9.7 | -33.7 | 46.8 |
| 16 | 2.354 | 94.7 | 8.6 | 43.8 | 55.3 |
| 17 | 2.189 | 76.0 | 8.1 | 44.2 | 54.0 |
| 18 | 2.250 | -38.0 | 5.3 | -55.5 | -60.9 |
| 19 | 2.259 | 76.8 | 9.5 | 46.2 | 59.2 |
| 20 | 2.424 | 69.7 | 9.9 | 46.2 | 58.2 |
| 21 | 2.191 | 55.6 | 2.4 | 45.4 | 51.0 |
| 22 | 2.323 | 83.1 | 4.9 | 45.9 | 52.3 |
| 23 | 2.355 | 87.7 | 4.1 | 39.7 | 46.8 |
| 24 | 2.244 | 84.0 | 4.6 | 40.9 | 50.3 |
| 25 | 2.378 | 56.7 | 3.3 | -55.7 | 59.8 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 6

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3136. | 7.62 | -2.97 | 6.14 | 7.77 | 5.02 |
| 2 | 3142. | 6.81 | 1.19 | 6.25 | 8.04 | 1.33 |
| 3 | -3133. | 8.57 | -3.30 | 5.39 | -5.61 | .65 |
| 4 | 3148. | 6.05 | 1.76 | 6.95 | 8.35 | 2.40 |
| 5 | 3145. | 4.29 | -4.11 | 6.62 | -9.31 | 1.97 |
| 6 | 3144. | 7.08 | -2.63 | 6.39 | 8.09 | 2.67 |
| 7 | 3148. | 6.49 | 1.71 | 5.48 | 7.23 | 5.93 |
| 8 | -3132. | 9.12 | 1.68 | 6.06 | 7.32 | .27 |
| 9 | 3139. | 5.31 | 1.47 | 6.70 | 7.67 | 1.33 |
| 10 | 3137. | 8.60 | -2.09 | -7.68 | -9.57 | 1.73 |
| 11 | 3149. | 5.59 | 1.00 | 6.92 | 8.19 | 1.62 |
| 12 | 3148. | -2.79 | 1.23 | -7.96 | -9.17 | 5.03 |
| 13 | 3136. | 6.44 | -1.87 | 7.16 | 8.45 | 1.[illegible] |
| 14 | 3140. | 5.14 | 1.17 | 6.81 | 7.95 | 4.[illegible] |
| 15 | 3139. | -10.75 | 1.58 | 5.24 | 7.26 | 3.4[illegible] |
| 16 | 3144. | 8.05 | 1.25 | 6.11 | 7.72 | 3.18 |
| 17 | 3146. | 6.95 | 1.28 | 6.64 | 8.12 | -6.99 |
| 18 | -3155. | -1.39 | .81 | -8.13 | -8.92 | 3.96 |
| 19 | 3148. | 6.81 | 1.45 | 6.73 | 8.62 | 5.33 |
| 20 | 3143. | 5.75 | 1.41 | 6.26 | 7.89 | .81 |
| 21 | -3151. | 5.09 | .37 | 6.83 | 7.67 | 1.17 |
| 22 | 3147. | 7.17 | .73 | 6.50 | 7.40 | 3.25 |
| 23 | 3140. | 7.44 | .59 | 5.53 | 6.52 | 1.97 |
| 24 | 3147. | 7.49 | .70 | 6.00 | 7.37 | .91 |
| 25 | 3143. | 6.77 | .47 | -7.69 | 8.26 | 2.89 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • BASELINE TEST SERIES •

MODE 6

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 3.3790 | 6.7870 | 15.8400 | 3.2750 | 6.5960 | 18.4000 |
| 2 | 4.7950 | 11.6690 | 21.8480 | 4.6400 | 11.3260 | 25.3440 |
| 3 | 4.4150 | 10.9900 | 21.0670 | 4.2750 | 10.6680 | 24.4420 |
| 4 | 5.6460 | -14.3380 | -25.0110 | 5.5580 | -14.1510 | -29.0520 |
| 5 | 4.6000 | 10.6430 | 20.8430 | 4.5310 | 10.5090 | 24.2210 |
| 6 | 5.0230 | 11.7590 | 22.1420 | 4.9460 | 11.6090 | 25.7260 |
| 7 | 4.0650 | 8.7430 | 18.5310 | 4.0050 | 8.6340 | 21.5390 |
| 8 | 4.0820 | 10.0270 | 20.0340 | 3.8750 | 9.5660 | 22.8930 |
| 9 | 4.6920 | 11.4950 | 21.7550 | 4.4460 | 10.9610 | 24.8450 |
| 10 | 3.3920 | 9.7410 | 19.7670 | 3.3350 | 9.5330 | 22.8450 |
| 11 | 3.4950 | 7.2440 | 16.7680 | 3.4930 | 7.2230 | 19.3950 |
| 12 | -5.6740 | -14.4800 | -25.1600 | 5.5630 | -14.1510 | -29.0520 |
| 13 | 4.8330 | 12.0930 | 22.4220 | 4.9070 | 12.1950 | 26.5120 |
| 14 | 3.8950 | 9.9160 | 19.8850 | 3.9500 | 9.9980 | 23.5060 |
| 15 | 3.2500 | 7.3750 | 16.6020 | 3.3330 | 7.5250 | 19.8640 |
| 16 | 4.7960 | 10.9790 | 21.0320 | 4.9330 | 11.2100 | 25.1860 |
| 17 | 4.0150 | 9.7580 | 19.5900 | 4.1220 | 9.9610 | 23.4540 |
| 18 | 4.6290 | 11.5690 | 22.0360 | 4.6410 | 11.5240 | 25.6120 |
| 19 | 4.1360 | 9.5050 | 19.5740 | 4.1460 | 9.4610 | 22.7420 |
| 20 | 5.3600 | 12.1930 | 22.3350 | 5.5080 | 12.3970 | 26.7800 |
| 21 | 3.1720 | 6.5910 | 16.2820 | 3.2440 | 6.7290 | 18.6140 |
| 22 | 4.7250 | 11.2070 | 21.7620 | 4.9560 | 11.5890 | 25.7000 |
| 23 | 4.5420 | 10.1800 | 20.1610 | 4.9300 | 10.9150 | 24.7810 |
| 24 | 3.3420 | 7.0390 | 16.2760 | 3.7160 | 7.6840 | 20.1090 |
| 25 | 3.9070 | 7.4670 | 17.7220 | 3.6910 | 7.0810 | 19.1720 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 6

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 7.86 | -3.05 | 7.14 | 9.03 | 4.68 |
| 2 | 7.04 | 1.22 | 7.25 | 9.32 | 1.33 |
| 3 | 8.65 | -3.40 | 6.25 | -6.51 | .65 |
| 4 | 6.15 | 1.79 | 8.07 | 9.70 | 2.40 |
| 5 | 6.35 | -4.16 | 7.69 | -10.82 | 1.97 |
| 6 | 7.19 | -2.66 | 7.42 | 9.40 | 2.67 |
| 7 | 6.59 | 1.73 | 6.37 | 8.40 | 5.23 |
| 8 | 9.61 | 1.76 | 6.92 | 8.37 | .27 |
| 9 | 5.61 | 1.54 | 7.66 | 8.75 | 1.33 |
| 10 | 8.75 | -2.14 | 8.87 | -11.07 | 1.35 |
| 11 | 5.59 | 1.01 | 8.00 | 9.47 | 1.62 |
| 12 | -2.85 | 1.26 | -9.19 | -10.59 | 5.08 |
| 13 | 6.74 | 1.85 | 8.47 | 10.00 | 1.19 |
| 14 | 5.06 | 1.16 | 8.05 | 9.39 | 4.14 |
| 15 | -10.50 | 1.55 | 6.27 | 8.69 | 3.42 |
| 16 | 7.83 | 1.22 | 7.32 | 9.24 | 3.18 |
| 17 | 6.77 | 1.25 | 7.95 | 9.72 | -6.35 |
| 18 | -3.38 | .82 | -9.45 | 10.37 | 3.70 |
| 19 | 6.80 | 1.46 | 7.82 | 10.02 | 5.33 |
| 20 | 5.60 | 1.39 | 7.49 | 9.44 | .81 |
| 21 | 4.97 | .36 | 8.39 | -9.42 | 1.17 |
| 22 | 6.83 | .71 | 8.25 | 9.39 | 2.53 |
| 23 | 6.86 | .55 | 7.30 | 8.60 | 1.97 |
| 24 | 6.74 | .64 | 7.96 | 9.79 | .91 |
| 25 | 5.05 | .50 | 8.94 | 9.60 | 1.59 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 7

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 29.00 | -66.50 | 28.92 | -66.31 |
| 2 | 29.00 | 69.70 | 28.92 | 69.50 |
| 3 | 31.50 | 68.50 | 31.41 | 68.30 |
| 4 | 31.00 | 69.50 | 30.96 | 69.40 |
| 5 | 32.00 | 69.50 | 31.95 | 69.40 |
| 6 | 30.00 | 69.50 | 29.96 | 69.40 |
| 7 | 33.50 | 69.50 | 33.45 | 69.40 |
| 8 | 30.00 | 68.00 | 29.86 | -67.67 |
| 9 | 29.00 | -67.00 | 28.86 | -66.68 |
| 10 | 28.40 | -67.30 | 28.36 | -67.20 |
| 11 | -34.50 | 69.60 | 34.50 | 69.60 |
| 12 | 29.50 | 68.80 | 29.46 | 68.70 |
| 13 | 30.50 | 69.00 | 30.54 | 69.10 |
| 14 | 32.00 | 70.00 | 32.05 | 70.10 |
| 15 | 33.00 | -67.60 | 33.08 | -67.76 |
| 16 | 31.00 | 68.70 | 31.07 | 68.87 |
| 17 | 31.50 | 68.70 | 31.58 | 68.87 |
| 18 | 31.00 | 68.40 | 31.01 | 68.43 |
| 19 | 30.50 | 68.60 | 30.51 | 68.63 |
| 20 | 33.00 | 69.00 | 33.08 | 69.17 |
| 21 | 31.00 | 69.00 | 31.06 | 69.13 |
| 22 | 29.50 | 68.00 | 29.63 | 68.30 |
| 23 | 29.00 | 68.80 | 29.20 | 69.27 |
| 24 | 31.50 | 68.50 | 31.81 | 69.17 |
| 25 | 32.60 | 69.40 | 32.44 | 69.07 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * BASELINE TEST SERIES *

MODE 7

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 1900. | .8660 | .7630 | 1167. | 1.020 | -3827. |
| 2 | 2250. | .8770 | .7770 | 1212. | 1.020 | 4926. |
| 3 | 2000. | .7990 | .6900 | 1161. | 1.020 | 4507. |
| 4 | 2100. | .8480 | .7160 | 1172. | 1.020 | 4896. |
| 5 | 2250. | .8170 | .7580 | 1143. | -1.030 | 4896. |
| 6 | 2000. | .8670 | .6830 | 1178. | 1.020 | 4896. |
| 7 | 2300. | .8330 | .7990 | 1215. | 1.020 | 4896. |
| 8 | 1900. | .7960 | .6790 | 1174. | 1.020 | -4293. |
| 9 | 1900. | .7950 | .7330 | 1169. | 1.020 | -3952. |
| 10 | 1900. | -.6610 | .7320 | 1237. | 1.020 | -4106. |
| 11 | 2300. | .7990 | .7460 | 1169. | -1.030 | 4952. |
| 12 | 2000. | .8640 | .7010 | 1223. | 1.020 | 4626. |
| 13 | 2100. | .8510 | .7310 | 1212. | -1.015 | 4767. |
| 14 | 2250. | .8200 | .7720 | 1217. | 1.025 | 5117. |
| 15 | 2200. | -.7760 | .7930 | 1131. | -1.030 | -4306. |
| 16 | 2100. | .8480 | .7190 | 1156. | 1.020 | 4691. |
| 17 | 2150. | .8040 | .7330 | 1147. | 1.020 | 4691. |
| 18 | 2050. | .7950 | .7090 | 1174. | 1.020 | 4529. |
| 19 | 2100. | .8010 | .7200 | 1163. | 1.020 | 4597. |
| 20 | 2250. | .8430 | .7650 | 1158. | 1.020 | 4784. |
| 21 | 2000. | .8360 | .6890 | 1178. | 1.025 | 4800. |
| 22 | 2000. | .9050 | .7230 | 1223. | 1.020 | 4473. |
| 23 | 1950. | .9160 | .6840 | 1215. | 1.020 | 4841. |
| 24 | 2100. | .8300 | .7190 | 1156. | 1.020 | 4781. |
| 25 | 2050. | .8650 | .7030 | 1190. | 1.026 | 4763. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • BASELINE TEST SERIES •

### MODE 7

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 1905. | .8610 | .7580 | 1160. | -3825. |
| 2 | 2256. | .8720 | .7730 | 1205. | 4925. |
| 3 | 2005. | .7940 | .6860 | 1155. | 4506. |
| 4 | 2100. | .8430 | .7140 | 1169. | 4890. |
| 5 | 2250. | .8150 | .7560 | 1140. | 4890. |
| 6 | 2000. | .8640 | .6820 | 1174. | 4890. |
| 7 | 2300. | .8300 | .7970 | 1212. | 4890. |
| 8 | 1906. | .7890 | .6720 | 1163. | -4286. |
| 9 | 1906. | .7870 | .7260 | 1157. | -3946. |
| 10 | 1910. | -.6590 | .7300 | 1233. | -4121. |
| 11 | 2204. | .7990 | .7460 | 1169. | 4960. |
| 12 | 2011. | .8620 | .6990 | 1219. | 4645. |
| 13 | 2105. | .8540 | .7330 | 1215. | 4785. |
| 14 | 2255. | .8220 | .7740 | 1221. | 5137. |
| 15 | 2200. | -.7800 | .7970 | 1136. | -4317. |
| 16 | 2100. | .8520 | .7220 | 1162. | 4703. |
| 17 | 2150. | .8080 | .7370 | 1152. | 4703. |
| 18 | 2059. | .7960 | .7100 | 1175. | 4552. |
| 19 | 2110. | .8020 | .7210 | 1164. | 4622. |
| 20 | 2256. | .8470 | .7690 | 1163. | 4808. |
| 21 | 1995. | .8390 | .6920 | -1182. | 4797. |
| 22 | 2005. | .9130 | .7300 | 1233. | 4504. |
| 23 | 1938. | .9290 | .6930 | 1232. | 4844. |
| 24 | 2092. | .8460 | .7330 | 1179. | 4810. |
| 25 | 2065. | .8570 | .6960 | 1179. | 4774. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 7

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.701 | 677.8 | 152.7 | 9.5 | 19.0 |
| 2 | 1.748 | 620.9 | 95.6 | 7.9 | 20.1 |
| 3 | 1.567 | 651.6 | 133.2 | 6.6 | -15.4 |
| 4 | 1.694 | 578.6 | 92.9 | 9.6 | 21.6 |
| 5 | 1.648 | 452.1 | 72.7 | 9.1 | 22.2 |
| 6 | 1.709 | 676.1 | 145.4 | 6.9 | 19.2 |
| 7 | 1.662 | 586.5 | 92.6 | 6.7 | 19.1 |
| 8 | 1.549 | 661.6 | 98.8 | 11.8 | 18.5 |
| 9 | 1.545 | 642.9 | 110.4 | 10.5 | 17.7 |
| 10 | -1.284 | 617.7 | 121.3 | 7.8 | 18.8 |
| 11 | 1.613 | 418.2 | 67.5 | 11.1 | -23.8 |
| 12 | 1.747 | 482.3 | 55.8 | 12.8 | 22.7 |
| 13 | 1.697 | 561.7 | 90.6 | 10.2 | 19.6 |
| 14 | 1.665 | -348.5 | 51.8 | 13.2 | 21.6 |
| 15 | -1.507 | 733.1 | 155.4 | 8.6 | 18.3 |
| 16 | 1.679 | 667.3 | 109.1 | 11.1 | 19.8 |
| 17 | 1.610 | 538.8 | 79.2 | 8.8 | 20.6 |
| 18 | 1.662 | 487.6 | 60.6 | 11.9 | 20.6 |
| 19 | 1.592 | 602.3 | 96.0 | 8.8 | 19.4 |
| 20 | 1.678 | 582.5 | 100.8 | 8.9 | 21.4 |
| 21 | 1.706 | -367.7 | 38.5 | 11.6 | 21.2 |
| 22 | 1.792 | 688.8 | 129.3 | 12.4 | 20.9 |
| 23 | 1.809 | 676.5 | 141.3 | 14.2 | 17.6 |
| 24 | 1.676 | 434.5 | 70.6 | 10.2 | 20.2 |
| 25 | 1.773 | -286.2 | 34.4 | 15.7 | -25.1 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 7

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2958. | 75.04 | 29.04 | 1.72 | 3.45 | 2.05 |
| 2 | 3000. | 67.83 | 17.94 | 1.40 | 3.61 | 0.00 |
| 3 | 2958. | 78.26 | 27.48 | 1.30 | 3.03 | .51 |
| 4 | 3010. | 65.44 | 18.06 | 1.78 | 4.01 | 1.85 |
| 5 | 3039. | 53.06 | 14.66 | 1.75 | 4.27 | .69 |
| 6 | 2969. | 74.77 | 27.63 | 1.26 | 3.49 | .94 |
| 7 | 3006. | 67.53 | 18.32 | 1.27 | 3.61 | .96 |
| 8 | 2970. | 79.70 | 20.46 | 2.34 | 3.67 | 1.60 |
| 9 | 2967. | 77.57 | 22.88 | 2.08 | 3.50 | 1.72 |
| 10 | -2932. | -89.79 | 30.29 | 1.86 | -4.49 | .13 |
| 11 | 3043. | 50.22 | 13.92 | 2.19 | -4.69 | 1.07 |
| 12 | 3043. | 53.47 | 10.63 | 2.32 | 4.14 | 1.18 |
| 13 | 3004. | 63.26 | 17.53 | 1.89 | 3.63 | 0.00 |
| 14 | 3059. | -40.76 | 10.40 | 2.53 | 4.15 | 0.00 |
| 15 | -2928. | -90.62 | -33.00 | 1.75 | 3.71 | 1.33 |
| 16 | 2984. | 75.46 | 21.20 | 2.07 | 3.67 | 1.72 |
| 17 | 3015. | 64.23 | 16.22 | 1.72 | 4.03 | -4.49 |
| 18 | 3036. | 58.81 | 12.55 | 2.37 | 4.08 | .79 |
| 19 | 2995. | 72.11 | 19.74 | 1.72 | 3.81 | 1.19 |
| 20 | 2998. | 66.25 | 19.69 | 1.67 | 4.00 | .66 |
| 21 | -3073. | -42.16 | 7.57 | 2.18 | 3.99 | .92 |
| 22 | 2981. | 72.95 | 23.54 | 2.15 | 3.64 | 1.96 |
| 23 | 2973. | 70.74 | 25.39 | 2.44 | 3.03 | 2.62 |
| 24 | 3043. | 50.21 | 14.01 | 1.93 | 3.83 | 1.18 |
| 25 | -3084. | -31.68 | 6.54 | -2.85 | -4.57 | .92 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • BASELINE TEST SERIES •

### MODE 7

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | -.4600 | -.3040 | -2.9760 | -.4500 | -.2970 | -3.4790 |
| 2 | .6120 | .5020 | 3.8360 | .5980 | .4900 | 4.4810 |
| 3 | .5140 | .4140 | 3.4730 | .5030 | .4040 | 4.0590 |
| 4 | .5840 | .4860 | 3.8070 | .5780 | .4820 | 4.4390 |
| 5 | .5690 | .4860 | 3.8070 | .5630 | .4820 | 4.4390 |
| 6 | .5940 | .4860 | 3.8070 | .5880 | .4820 | 4.4390 |
| 7 | .5770 | .4860 | 3.8070 | .5710 | .4820 | 4.4390 |
| 8 | -.4910 | .3790 | -3.3390 | -.4750 | .3660 | 3.8610 |
| 9 | -.4500 | -.3220 | -3.0790 | -.4340 | -.3100 | -3.5620 |
| 10 | -.4170 | -.3450 | -3.2050 | -.4110 | -.3390 | -3.7170 |
| 11 | .5670 | .5000 | 3.9110 | .5670 | .4990 | 4.5230 |
| 12 | .5590 | .4390 | 3.6130 | .5520 | .4300 | 4.1880 |
| 13 | .5410 | .4550 | 3.6680 | .5660 | .4580 | 4.3210 |
| 14 | .6020 | -.5410 | 4.0230 | .6070 | .5440 | 4.7400 |
| 15 | -.4670 | -.3660 | -3.2680 | -.4750 | .3710 | 3.8980 |
| 16 | .5450 | .4350 | 3.5640 | .5540 | .4410 | 4.2430 |
| 17 | .5250 | .4350 | 3.5640 | .5340 | .4410 | 4.2430 |
| 18 | .5090 | .4150 | 3.5330 | .5100 | .4130 | 4.1610 |
| 19 | .5210 | .4280 | 3.5890 | .5210 | .4260 | 4.1660 |
| 20 | .5570 | .4570 | 3.6540 | .5660 | .4620 | 4.3430 |
| 21 | .5520 | .4520 | 3.8040 | .5610 | .4600 | 4.3320 |
| 22 | .5400 | .3950 | 3.4740 | .5570 | .4040 | 4.0570 |
| 23 | .5820 | .4460 | 3.6260 | .6150 | .4710 | 4.3850 |
| 24 | .5260 | .4320 | 3.5890 | .5660 | .4620 | 4.3440 |
| 25 | .5900 | .4760 | 3.9440 | .5670 | .4550 | 4.3100 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 7

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 76.70 | 29.70 | 2.01 | 4.03 | 2.05 |
| 2 | 69.40 | 18.37 | 1.64 | 4.22 | 0.00 |
| 3 | 79.96 | 28.11 | 1.52 | 3.54 | .51 |
| 4 | 66.10 | 18.23 | 2.07 | 4.68 | 1.74 |
| 5 | 53.59 | 14.80 | 2.04 | 4.98 | .69 |
| 6 | 75.54 | 27.89 | 1.47 | 4.07 | .94 |
| 7 | 68.21 | 18.49 | 1.48 | 4.21 | .96 |
| 8 | 82.54 | 21.20 | 2.71 | 4.24 | 1.60 |
| 9 | 80.29 | 23.70 | 2.40 | 4.05 | 1.07 |
| 10 | -90.93 | -30.85 | 2.16 | 5.20 | .13 |
| 11 | 50.26 | 13.97 | 2.53 | -5.43 | 1.07 |
| 12 | 54.24 | 10.83 | 2.69 | 4.80 | .95 |
| 13 | 62.69 | 17.45 | 2.22 | 4.27 | 0.00 |
| 14 | -40.39 | 10.35 | 2.98 | 4.89 | 0.00 |
| 15 | -89.12 | -32.51 | 2.09 | 4.42 | 1.33 |
| 16 | 74.14 | 20.88 | 2.46 | 4.37 | 1.72 |
| 17 | 63.13 | 15.97 | 2.05 | 4.79 | -4.10 |
| 18 | 58.79 | 12.62 | 2.75 | 4.73 | .79 |
| 19 | 72.10 | 19.85 | 2.00 | 4.43 | 1.09 |
| 20 | 65.21 | 19.48 | 1.99 | 4.75 | .66 |
| 21 | -41.48 | 7.45 | 2.67 | 4.88 | .92 |
| 22 | 70.74 | 23.00 | 2.70 | 4.56 | 1.96 |
| 23 | 66.88 | 24.04 | 3.17 | 3.93 | -2.41 |
| 24 | 46.70 | 13.08 | 2.50 | 4.98 | 1.18 |
| 25 | -32.98 | 6.83 | 3.35 | 5.36 | .66 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 8

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 25.50 | -63.00 | 25.43 | -62.82 |
| 2 | 26.50 | -66.80 | 26.42 | 66.61 |
| 3 | -30.50 | -67.70 | -30.41 | -67.51 |
| 4 | 25.50 | 65.50 | 25.46 | 65.41 |
| 5 | 28.00 | 65.20 | 27.96 | 65.11 |
| 6 | 27.00 | 64.50 | 26.96 | 64.41 |
| 7 | 29.50 | 65.20 | 29.46 | 65.11 |
| 8 | 27.50 | 65.50 | 27.37 | 65.19 |
| 9 | 28.00 | 65.50 | 27.87 | 65.19 |
| 10 | 26.20 | 63.80 | 26.16 | 63.71 |
| 11 | 29.50 | 65.40 | 29.50 | 65.40 |
| 12 | 25.50 | 64.30 | 25.46 | 64.21 |
| 13 | 27.00 | 65.50 | 27.04 | 65.59 |
| 14 | 29.00 | -66.50 | 29.04 | 66.60 |
| 15 | -30.00 | 65.50 | 30.07 | 65.66 |
| 16 | 28.00 | 65.20 | 28.07 | 65.36 |
| 17 | 26.50 | 64.50 | 26.56 | 64.66 |
| 18 | 27.00 | 64.30 | 27.01 | 64.33 |
| 19 | 27.00 | 64.80 | 27.01 | 64.83 |
| 20 | 28.00 | 65.80 | 28.07 | 65.96 |
| 21 | 27.00 | 65.00 | 27.05 | 65.13 |
| 22 | 27.00 | 65.50 | 27.12 | 65.79 |
| 23 | 25.30 | 65.00 | 25.47 | 65.44 |
| 24 | -30.00 | -67.00 | -30.29 | -67.66 |
| 25 | 28.10 | 64.30 | 27.97 | 63.99 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 8

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 1700. | .8850 | -.9490 | 1179. | 1.020 | -2746. |
| 2 | 1850. | .8960 | -.7370 | 1208. | 1.020 | -3924. |
| 3 | 1950. | .8060 | -.7080 | 1161. | 1.020 | -4228. |
| 4 | 1700. | .8530 | .7450 | 1163. | -1.010 | 3537. |
| 5 | 1900. | .8190 | .8460 | 1133. | 1.020 | 3439. |
| 6 | 1800. | .8760 | .8680 | 1172. | 1.020 | 3226. |
| 7 | 1900. | .8320 | .8720 | 1203. | 1.020 | 3439. |
| 8 | 1800. | .7910 | .7910 | 1169. | 1.020 | 3466. |
| 9 | 1800. | .8000 | .7900 | 1167. | -1.010 | 3466. |
| 10 | 1700. | .7870 | .8900 | 1224. | 1.020 | 3001. |
| 11 | 1800. | .8000 | .7890 | 1149. | 1.020 | 3524. |
| 12 | 1700. | .8800 | .9460 | 1217. | -1.010 | 3149. |
| 13 | 1850. | .8640 | .8220 | 1208. | -1.010 | 3580. |
| 14 | 2000. | .8210 | .8140 | 1210. | 1.020 | 3904. |
| 15 | 2000. | -.7770 | .8580 | 1122. | -1.030 | 3605. |
| 16 | 1850. | .8580 | .8240 | 1143. | 1.020 | 3507. |
| 17 | 1800. | .8180 | .8510 | 1134. | 1.020 | 3289. |
| 18 | 1800. | .7990 | .8750 | 1163. | 1.020 | 3183. |
| 19 | 1800. | .8210 | .8390 | 1172. | -1.010 | 3332. |
| 20 | 1900. | .8520 | .7960 | 1136. | -1.010 | 3693. |
| 21 | 1700. | .8270 | .7850 | -1178. | 1.020 | 3443. |
| 22 | 1900. | .9110 | .8470 | 1223. | 1.020 | 3631. |
| 23 | 1750. | .9390 | .8240 | 1224. | 1.015 | 3542. |
| 24 | 2000. | -.7090 | .7550 | 1136. | 1.020 | -4254. |
| 25 | 1700. | .8440 | .8260 | 1156. | 1.020 | 3090. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 8

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 1704. | .8800 | -.9440 | 1173. | -2746. |
| 2 | 1855. | .8900 | -.7320 | 1201. | 3922. |
| 3 | 1955. | .8020 | -.7040 | 1155. | -4227. |
| 4 | 1700. | .8510 | .7430 | 1160. | 3532. |
| 5 | 1900. | .8170 | .8430 | 1129. | 3434. |
| 6 | 1800. | .8730 | .8660 | 1169. | 3222. |
| 7 | 1900. | .8300 | .8690 | 1199. | 3434. |
| 8 | 1806. | .7830 | .7830 | 1157. | 3461. |
| 9 | 1806. | .7920 | .7830 | 1156. | 3461. |
| 10 | 1709. | .7840 | .8870 | 1221. | 3012. |
| 11 | 1803. | .8000 | .7890 | 1149. | 3530. |
| 12 | 1710. | .8770 | .8430 | 1214. | 3162. |
| 13 | 1854. | .8660 | .8250 | 1212. | 3593. |
| 14 | 2005. | .8230 | .8170 | 1213. | 3919. |
| 15 | 2000. | .7800 | .8620 | 1127. | 3614. |
| 16 | 1850. | .8620 | .8280 | 1149. | 3516. |
| 17 | 1800. | .8220 | .8550 | 1140. | 3297. |
| 18 | 1808. | .8000 | .8760 | 1164. | 3199. |
| 19 | 1809. | .8220 | .8400 | 1173. | 3349. |
| 20 | 1905. | .8560 | .8000 | 1142. | 3712. |
| 21 | 1696. | .8310 | .7880 | -1182. | 3441. |
| 22 | 1905. | .9190 | .8550 | 1233. | 3655. |
| 23 | 1739. | .9520 | .8350 | -1241. | 3544. |
| 24 | 1993. | -.7430 | .7700 | 1158. | -4279. |
| 25 | 1713. | .8360 | .8180 | 1145. | 3098. |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

MODE 8

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.711 | 796.5 | 209.0 | 9.9 | 17.1 |
| 2 | 1.761 | 729.1 | 144.6 | 7.2 | 18.3 |
| 3 | 1.578 | 673.1 | 143.4 | 6.4 | 16.3 |
| 4 | 1.655 | 804.4 | 183.2 | 9.3 | 17.8 |
| 5 | 1.626 | 605.9 | 110.2 | 8.5 | 19.2 |
| 6 | 1.691 | 825.3 | 213.3 | 6.9 | 16.8 |
| 7 | 1.625 | 735.9 | 156.8 | 5.6 | 14.2 |
| 8 | 1.530 | 744.0 | 162.1 | 11.5 | 17.2 |
| 9 | 1.567 | 679.9 | 124.4 | 10.3 | 17.0 |
| 10 | 1.518 | 728.1 | 185.3 | 7.7 | 17.4 |
| 11 | 1.572 | 645.5 | 135.9 | 9.7 | 19.9 |
| 12 | 1.752 | 641.2 | 94.4 | 12.0 | 19.8 |
| 13 | 1.696 | 669.9 | 147.8 | 8.9 | 17.4 |
| 14 | 1.544 | -498.9 | -75.8 | 11.4 | 19.5 |
| 15 | -1.488 | 794.7 | 197.8 | 7.9 | 16.4 |
| 16 | 1.662 | 798.0 | 189.2 | 11.0 | 17.1 |
| 17 | 1.597 | 727.0 | 153.2 | 8.2 | 17.7 |
| 18 | 1.581 | 640.6 | 102.1 | 12.1 | 18.0 |
| 19 | 1.594 | 760.7 | 174.5 | 8.8 | 17.0 |
| 20 | 1.656 | 746.6 | 177.1 | 7.8 | 17.4 |
| 21 | 1.668 | -481.0 | -65.2 | 9.3 | 18.8 |
| 22 | 1.781 | 789.8 | 174.1 | 11.9 | 19.2 |
| 23 | 1.825 | 812.5 | 203.4 | 12.0 | 15.0 |
| 24 | -1.472 | -357.2 | -66.2 | 10.4 | -20.8 |
| 25 | 1.697 | -468.6 | -70.5 | 12.0 | 20.1 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 8

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2913. | 86.32 | 38.91 | 1.77 | 3.05 | 2.74 |
| 2 | 2960. | 78.03 | 26.58 | 1.27 | 3.21 | 1.32 |
| 3 | 2950. | 80.06 | 29.31 | 1.25 | 3.18 | .13 |
| 4 | 2924. | 90.42 | 35.38 | 1.72 | 3.29 | .53 |
| 5 | 2980. | 70.93 | 22.17 | 1.64 | 3.69 | 1.10 |
| 6 | 2911. | 90.40 | 40.15 | 1.24 | 3.02 | 1.07 |
| 7 | 2944. | 84.84 | 31.05 | 1.06 | 2.69 | .83 |
| 8 | 2917. | 90.28 | 33.30 | 2.30 | 3.43 | 0.00 |
| 9 | 2953. | 81.55 | 25.63 | 2.04 | 3.36 | .93 |
| 10 | 2910. | 88.81 | 38.93 | 1.54 | 3.49 | .66 |
| 11 | 2962. | 77.38 | 27.38 | 1.91 | -3.93 | .80 |
| 12 | 2998. | 69.93 | 17.67 | 2.15 | 3.55 | 1.97 |
| 13 | 2957. | 74.35 | 28.19 | 1.63 | 3.17 | .27 |
| 14 | -3018. | -58.26 | -15.22 | 2.19 | 3.74 | .66 |
| 15 | 2891. | 98.23 | 42.01 | 1.60 | 3.34 | 0.00 |
| 16 | 2921. | 89.24 | 36.35 | 2.03 | 3.14 | 0.00 |
| 17 | 2942. | 85.22 | 30.85 | 1.58 | 3.41 | 3.31 |
| 18 | 2984. | 76.93 | 21.06 | 2.38 | 3.55 | 1.99 |
| 19 | 2927. | 88.90 | 35.04 | 1.69 | 3.27 | 1.32 |
| 20 | 2930. | 84.09 | 34.26 | 1.45 | 3.23 | .66 |
| 21 | -3037. | -55.73 | -12.97 | 1.76 | 3.58 | .65 |
| 22 | 2944. | 83.09 | 31.46 | 2.06 | 3.31 | 2.58 |
| 23 | 2924. | 82.99 | 35.44 | 2.01 | 2.52 | -3.51 |
| 24 | -3045. | -47.04 | -14.98 | 2.25 | -6.49 | .39 |
| 25 | -3030. | -53.24 | -13.76 | 2.24 | 3.75 | 1.57 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## J1VD-3A - BASELINE TEST SERIES -

MODE 8

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .3890 | .2240 | -2.4780 | .3800 | .2190 | -2.9000 |
| 2 | -.4810 | -.3140 | 3.0280 | .4700 | -.3070 | 3.5410 |
| 3 | -.4930 | -.3640 | -3.2580 | .4730 | -.3560 | -3.8090 |
| 4 | .4270 | .2720 | 2.8280 | .4230 | .2700 | 3.2990 |
| 5 | .4070 | .2640 | 2.7780 | .4030 | .2610 | 3.2420 |
| 6 | .4080 | .2440 | 2.6650 | .4050 | .2420 | 3.1100 |
| 7 | .4120 | .2640 | 2.7780 | .4080 | .2610 | 3.2420 |
| 8 | .4080 | .2730 | 2.8130 | .3950 | .2640 | 3.2570 |
| 9 | .4110 | .2730 | 2.8130 | .3970 | .2640 | 3.2570 |
| 10 | .3690 | .2330 | 2.5880 | -.3640 | .2290 | 3.0030 |
| 11 | .4060 | .2710 | 2.8520 | .4050 | .2700 | 3.2980 |
| 12 | .4070 | .2410 | 2.6490 | .4010 | .2370 | 3.0730 |
| 13 | .4290 | .2740 | 2.8340 | .4330 | .2750 | 3.3370 |
| 14 | .4400 | -.3050 | 3.0050 | .4440 | .3060 | 3.5380 |
| 15 | .3990 | .2730 | 2.8160 | .4050 | .2770 | 3.3490 |
| 16 | .4180 | .2650 | 2.7660 | .4250 | .2690 | 3.2900 |
| 17 | .3880 | .2450 | 2.6540 | .3940 | .2490 | 3.1560 |
| 18 | .3790 | .2410 | 2.6670 | .3790 | .2400 | 3.0950 |
| 19 | .3980 | .2550 | 2.7480 | .3990 | .2540 | 3.1890 |
| 20 | .4320 | .2840 | 2.8700 | .4390 | .2860 | 3.4090 |
| 21 | .4020 | .2580 | 2.8520 | .4080 | .2620 | 3.2450 |
| 22 | .4450 | .2750 | 2.8920 | .4590 | .2810 | 3.3740 |
| 23 | .4380 | .2570 | 2.7410 | .4620 | .2710 | 3.3070 |
| 24 | .4270 | -.3410 | -3.1890 | .4570 | -.3650 | -3.8550 |
| 25 | .3970 | .2420 | 2.7730 | .3830 | .2320 | 3.0370 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • BASELINE TEST SERIES •

MODE 8

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 88.18 | 39.76 | 2.07 | 3.57 | 1.63 |
| 2 | 79.79 | 27.19 | 1.49 | 3.75 | 1.32 |
| 3 | 81.80 | 29.99 | 1.46 | 3.72 | .13 |
| 4 | 91.30 | 35.69 | 2.00 | 3.84 | .53 |
| 5 | 71.60 | 22.37 | 1.92 | 4.30 | .68 |
| 6 | 91.28 | 40.51 | 1.45 | 3.52 | 1.07 |
| 7 | 85.65 | 31.33 | 1.24 | 3.14 | .83 |
| 8 | 93.39 | 35.00 | 2.66 | 3.97 | 0.00 |
| 9 | 84.38 | 26.54 | 2.36 | 3.89 | .93 |
| 10 | 89.96 | 39.53 | 1.78 | 4.05 | .66 |
| 11 | 77.45 | 28.07 | 2.21 | 4.54 | .68 |
| 12 | 70.80 | 18.00 | 2.49 | 4.11 | 1.97 |
| 13 | 73.70 | 28.06 | 1.92 | 3.74 | .27 |
| 14 | -57.77 | -15.15 | 2.58 | 4.40 | .66 |
| 15 | 96.65 | 41.41 | 1.91 | 3.97 | 0.00 |
| 16 | 87.72 | 35.83 | 2.41 | 3.74 | 0.00 |
| 17 | 83.82 | 30.41 | 1.88 | 4.05 | -3.31 |
| 18 | 76.92 | 21.17 | 2.77 | 4.12 | 1.36 |
| 19 | 88.90 | 35.24 | 1.96 | 3.79 | 1.22 |
| 20 | 82.82 | 33.92 | 1.72 | 3.83 | .66 |
| 21 | -54.88 | -12.76 | 2.15 | 4.37 | .65 |
| 22 | 80.64 | 30.77 | 2.58 | 4.15 | 2.11 |
| 23 | 78.49 | 33.83 | 2.60 | 3.26 | -3.19 |
| 24 | -43.99 | -14.01 | 2.92 | -5.83 | .39 |
| 25 | -55.27 | -14.35 | 2.63 | 4.41 | 1.45 |



NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 600 HOUR TEST SERIES •

| UNIT | TSO HR | TSB HR | AMB TEMP DEG R | AMB PRESS IN HG | AMB HUMID LB H2O/AIR |
|---|---|---|---|---|---|
| 1 | 12396. | 620. | 521.2 | 30.25 | .005050 |
| 2 | 11764. | 620. | 521.2 | 30.25 | .005050 |
| 3 | 12416. | 620. | 521.2 | 30.25 | .005050 |
| 4 | 13146. | 615. | 514.2 | 30.09 | .006620 |
| 6 | 14855. | 615. | 514.2 | 30.14 | .006610 |
| 7 | 13009. | 615. | 514.2 | 30.16 | .006600 |
| 9 | 14486. | 801. | 507.2 | 30.35 | .005300 |
| 10 | 13184. | 676. | 509.2 | 30.05 | .006210 |
| 11 | 14643. | 585. | 510.7 | 30.46 | .004950 |
| 12 | 14199. | 674. | 509.7 | 30.05 | .006100 |
| 13 | 12776. | 651. | 509.7 | 30.08 | .006580 |
| 16 | 13328. | 791. | 506.7 | 30.30 | .006420 |
| 17 | 13123. | 791. | 506.7 | 30.27 | .006420 |
| 20 | 8762. | 539. | 509.7 | 30.22 | .004760 |
| 22 | 12582. | 549. | 508.7 | 30.17 | .006300 |
| 23 | 15144. | 774. | 519.2 | 29.96 | .008720 |
| 24 | 13429. | 626. | 518.7 | 29.92 | .008280 |

JT9D-3A * 600 HOUR TEST SERIES *

MODE 1

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 27.30 | 64.50 | 27.23 | 64.35 |
| 2 | 26.50 | 65.00 | 26.44 | 64.84 |
| 3 | 29.00 | 64.00 | 28.93 | 63.85 |
| 4 | 27.50 | 64.50 | 27.62 | 64.79 |
| 6 | 27.00 | 64.50 | 27.12 | 64.79 |
| 7 | 29.00 | 64.50 | 29.13 | 64.79 |
| 9 | -31.00 | 65.00 | -31.35 | 65.73 |
| 10 | 28.70 | -63.00 | 28.97 | 63.58 |
| 11 | 29.50 | 64.50 | 29.73 | 65.00 |
| 12 | 28.00 | 65.00 | 28.25 | 65.57 |
| 13 | 29.50 | 65.50 | 29.76 | 66.08 |
| 16 | 29.00 | 64.40 | 29.34 | 65.16 |
| 17 | 30.00 | 64.70 | 30.35 | 65.45 |
| 20 | 29.00 | 65.00 | 29.25 | 65.57 |
| 22 | 26.80 | -63.00 | 27.06 | 63.62 |
| 23 | 28.50 | 65.50 | 28.49 | 65.47 |
| 24 | 27.00 | 64.40 | 27.00 | 64.40 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 600 HOUR TEST SERIES •

MODE 1

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 1900. | .9620 | .9080 | 1179. | 1.020 | 3169. |
| 2 | 1900. | .9490 | .8740 | 1194. | 1.020 | 3317. |
| 3 | 1900. | .8460 | .9350 | 1140. | 1.020 | 3021. |
| 4 | 1800. | .9310 | .8500 | 1140. | 1.015 | 3316. |
| 6 | 1850. | .9050 | .8750 | 1147. | 1.020 | 3310. |
| 7 | 1900. | .8780 | .9000 | 1152. | 1.020 | 3308. |
| 9 | 2050. | .8630 | .9200 | 1142. | 1.020 | 3587. |
| 10 | 1900. | .9250 | -1.0600 | 1187. | 1.020 | 2963. |
| 11 | 1920. | .8370 | .8870 | 1118. | 1.020 | 3341. |
| 12 | 1870. | .9110 | .8590 | 1174. | 1.020 | 3570. |
| 13 | 1900. | .9050 | .8270 | 1161. | 1.015 | 3730. |
| 16 | 1900. | .9100 | .8910 | 1118. | 1.020 | 3409. |
| 17 | 2050. | .9080 | .9400 | 1125. | 1.020 | 3509. |
| 20 | 2030. | .8830 | .9000 | -1106. | 1.015 | 3550. |
| 22 | 1900. | .9360 | -1.0370 | 1143. | 1.020 | 2960. |
| 23 | 2000. | .9470 | .8950 | -1215. | 1.020 | 3548. |
| 24 | 1840. | -.7530 | .8880 | 1156. | 1.016 | 3221. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 600 HOUR TEST SERIES •

MODE 1

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 1926. | .9570 | .9040 | 1174. | 3204. |
| 2 | 1926. | .9440 | .8700 | 1188. | 3353. |
| 3 | 1926. | .8420 | .9300 | 1134. | 3054. |
| 4 | 1802. | .9390 | .8570 | 1150. | 3334. |
| 6 | 1856. | .9130 | .8830 | 1157. | 3334. |
| 7 | 1907. | .8850 | .9080 | 1162. | 3334. |
| 9 | 2056. | .8830 | .9410 | 1167. | 3638. |
| 10 | 1891. | .9430 | -1.0800 | 1209. | 2975. |
| 11 | 1940. | .8510 | .9010 | 1136. | 3401. |
| 12 | 1862. | .9280 | .8740 | 1195. | 3586. |
| 13 | 1894. | .9210 | .8410 | 1182. | 3750. |
| 16 | 1901. | .9320 | .9120 | 1145. | 3451. |
| 17 | 2050. | .9300 | .9620 | 1152. | 3550. |
| 20 | 2032. | .8980 | .9160 | 1125. | 3586. |
| 22 | 1897. | .9540 | -1.0570 | 1166. | 2985. |
| 23 | 2004. | .9460 | .8940 | -1214. | 3552. |
| 24 | 1840. | -.7530 | .8880 | 1156. | 3220. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 1

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOx CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.881 | 792.4 | 189.0 | 17.5 | -20.6 |
| 2 | 1.858 | 799.3 | 172.7 | 14.5 | 20.5 |
| 3 | 1.623 | 837.2 | 215.1 | 10.8 | 17.8 |
| 4 | 1.789 | 871.8 | 258.6 | 16.4 | 18.0 |
| 6 | 1.727 | 910.6 | 266.8 | 15.4 | 17.7 |
| 7 | 1.701 | 828.6 | 190.4 | 12.1 | 18.2 |
| 9 | 1.682 | 736.0 | 166.6 | 11.7 | 19.0 |
| 10 | 1.797 | 791.5 | 215.9 | 9.8 | 18.0 |
| 11 | 1.608 | 796.7 | 223.3 | 8.4 | 18.6 |
| 12 | 1.798 | 711.5 | 141.2 | 10.9 | 18.7 |
| 13 | 1.773 | 696.0 | 176.6 | 10.6 | 18.8 |
| 16 | 1.747 | 876.9 | 250.8 | 12.8 | 19.1 |
| 17 | 1.774 | 720.9 | 200.6 | 13.6 | 19.5 |
| 20 | 1.700 | 810.9 | 231.3 | 15.0 | 19.3 |
| 22 | 1.793 | 896.5 | 263.4 | 9.3 | 18.7 |
| 23 | 1.849 | 773.8 | 200.7 | -19.4 | 17.6 |
| 24 | 1.508 | -429.0 | 87.1 | 13.4 | 16.7 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 600 HOUR TEST SERIES •

MODE 1

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2944. | 78.92 | 32.16 | 2.87 | 3.37 | 3.79 |
| 2 | 2947. | 80.70 | 29.95 | 2.41 | 3.40 | 1.31 |
| 3 | 2892. | 94.91 | 41.89 | 2.00 | 3.31 | 1.56 |
| 4 | 2894. | 89.75 | 45.73 | 2.77 | 3.04 | -6.86 |
| 6 | 2875. | 96.52 | 48.59 | 2.69 | 3.08 | 1.96 |
| 7 | 2920. | 90.55 | 35.75 | 2.17 | 3.27 | 2.74 |
| 9 | 2936. | 81.75 | 31.79 | 2.14 | 3.47 | 2.47 |
| 10 | 2924. | 81.98 | 38.41 | 1.67 | 3.07 | 1.97 |
| 11 | 2894. | 91.27 | 43.95 | 1.59 | 3.49 | 1.17 |
| 12 | 2971. | 74.81 | 25.51 | 1.88 | 3.23 | 1.95 |
| 13 | 2951. | 73.99 | 32.15 | 1.84 | 3.27 | 1.32 |
| 16 | 2891. | 92.37 | 45.38 | 2.22 | 3.30 | 2.40 |
| 17 | 2941. | 76.07 | 36.37 | 2.35 | 3.39 | 1.18 |
| 20 | 2901. | 88.09 | 43.17 | 2.67 | 3.44 | .66 |
| 22 | 2887. | 91.85 | 46.36 | 1.57 | 3.14 | 2.47 |
| 23 | 2939. | 78.28 | 34.99 | 3.22 | 3.22 | 3.95 |
| 24 | -3018. | -54.63 | 19.06 | 2.81 | 3.48 | -5.23 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 600 HOUR TEST SERIES *

MODE 1

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .4450 | .2500 | 2.9800 | .4330 | .2410 | 3.0980 |
| 2 | .4540 | .2640 | 2.9670 | .4420 | .2540 | 3.1920 |
| 3 | .3930 | .2390 | 2.8070 | .3830 | .2300 | 3.0190 |
| 4 | .4250 | .2460 | 2.7250 | .4380 | .2520 | 3.1800 |
| 6 | .4160 | .2470 | 2.7280 | .4280 | .2520 | 3.1800 |
| 7 | .4070 | .2470 | 2.7290 | .4180 | .2520 | 3.1800 |
| 9 | .4110 | .2630 | 2.8240 | .4430 | .2800 | 3.3640 |
| 10 | .3850 | -.2130 | -2.4920 | .4130 | .2270 | 2.9880 |
| 11 | .3940 | .2510 | 2.7970 | .4120 | .2580 | 3.2220 |
| 12 | .4270 | .2590 | 2.7900 | .4560 | .2750 | 3.3320 |
| 13 | .4380 | .2730 | 2.8490 | .4670 | .2900 | 3.4320 |
| 16 | .4100 | .2450 | 2.6620 | .4460 | .2630 | 3.2520 |
| 17 | .4170 | .2530 | 2.7080 | .4540 | .2720 | 3.3100 |
| 20 | .4180 | .2610 | 2.8700 | .4440 | .2750 | 3.3320 |
| 22 | .3890 | -.2150 | -2.4870 | 4170 | .2280 | 2.9920 |
| 23 | .4630 | .2730 | 2.8180 | .4600 | .2720 | 3.3120 |
| 24 | .3670 | .2420 | 2.6560 | .3670 | .2420 | 3.1080 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 1

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 81.09 | 33.42 | 3.31 | 3.89 | 2.14 |
| 2 | 82.92 | 31.13 | 2.78 | 3.93 | 1.31 |
| 3 | 97.40 | 43.53 | 2.32 | 3.82 | .66 |
| 4 | 37.03 | 44.65 | 3.47 | 3.81 | -4.65 |
| 6 | 93.76 | 47.59 | 3.36 | 3.86 | 1.46 |
| 7 | 88.05 | 35.05 | 2.72 | 4.09 | 2.66 |
| 9 | 75.77 | 29.88 | 2.73 | 4.44 | 2.47 |
| 10 | 76.48 | 36.06 | 2.15 | 3.95 | 1.74 |
| 11 | 87.20 | 42.72 | 1.97 | 4.32 | 1.06 |
| 12 | 70.00 | 24.01 | 2.41 | 4.14 | 1.32 |
| 13 | 69.25 | 30.30 | 2.38 | 4.23 | 1.32 |
| 16 | 85.00 | 42.37 | 2.92 | 4.33 | 1.61 |
| 17 | 69.95 | 33.90 | 3.09 | 4.45 | .79 |
| 20 | 82.87 | 41.04 | 3.33 | 4.29 | .66 |
| 22 | 85.57 | 43.67 | 2.03 | 4.06 | 1.59 |
| 23 | 78.63 | 35.09 | 3.78 | 3.78 | -3.88 |
| 24 | -54.61 | 19.06 | 3.29 | 4.08 | 2.66 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 2

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 32.20 | 68.70 | 32.12 | 68.54 |
| 2 | 32.60 | 69.30 | 32.52 | 69.13 |
| 3 | 34.00 | 68.80 | 33.92 | 68.63 |
| 4 | 32.50 | 69.00 | 32.64 | 69.30 |
| 6 | 34.00 | 69.50 | 34.15 | 69.80 |
| 7 | 34.00 | 69.00 | 34.15 | 69.30 |
| 9 | -37.50 | 69.00 | -37.92 | 69.78 |
| 10 | 35.60 | 69.40 | 35.93 | 70.04 |
| 11 | 36.00 | 70.00 | 36.28 | 70.55 |
| 12 | -36.30 | 69.70 | -36.62 | 70.31 |
| 13 | 34.00 | 69.20 | 34.30 | 69.81 |
| 16 | 33.00 | 68.60 | 33.39 | 69.41 |
| 17 | 33.50 | 68.70 | 33.89 | 69.51 |
| 20 | 35.00 | 69.50 | 35.31 | 70.11 |
| 22 | 32.40 | 69.00 | 32.72 | 69.67 |
| 23 | -30.50 | 69.00 | -30.49 | 68.97 |
| 24 | 32.50 | 69.00 | 32.50 | 69.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

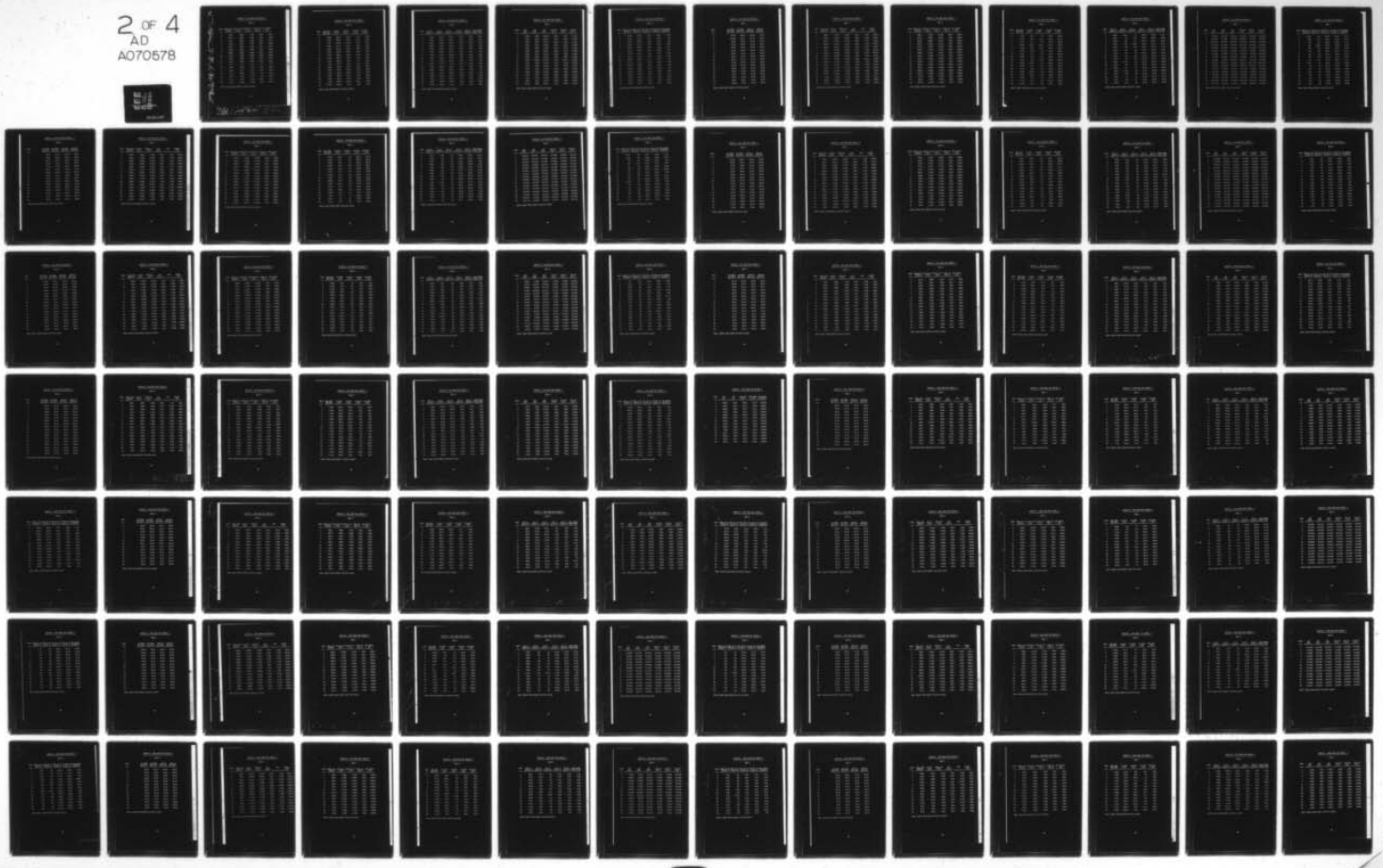
MODE 2

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 2220. | .9420 | .7610 | 1178. | 1.025 | 4537. |
| 2 | 2250. | .9360 | .7720 | 1205. | 1.025 | 4744. |
| 3 | 2300. | .9670 | .7780 | 1151. | 1.025 | 4572. |
| 4 | 2200. | .9370 | .7460 | 1154. | 1.025 | 4828. |
| 6 | 2400. | .9070 | .8120 | 1170. | 1.030 | 4994. |
| 7 | 2400. | .8990 | .8180 | 1170. | 1.025 | 4817. |
| 9 | 2550. | .8780 | -.8630 | 1167. | 1.030 | 4951. |
| 10 | 2460. | .9420 | .8520 | 1215. | 1.030 | 5094. |
| 11 | 2420. | .9450 | .7880 | 1129. | 1.027 | 5203. |
| 12 | 2550. | .9220 | -.8740 | 1201. | 1.030 | 5190. |
| 13 | 2230. | .9020 | .7590 | 1170. | 1.020 | 5006. |
| 16 | 2250. | .9160 | .7570 | 1136. | 1.025 | 4832. |
| 17 | 2350. | .9210 | .7920 | 1140. | 1.025 | 4871. |
| 20 | 2400. | .9030 | .7960 | 1133. | 1.025 | 5089. |
| 22 | 2370. | .9270 | .8070 | 1169. | 1.025 | 4945. |
| 23 | 2100. | .9360 | .7330 | 1214. | 1.025 | 4732. |
| 24 | 2160. | -.7550 | .7450 | 1179. | 1.024 | 4751. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

AD-A070 578 NORTHERN RESEARCH AND ENGINEERING CORP CAMBRIDGE MASS F/G 13/2
TIME DEGRADATION FACTORS FOR TURBINE ENGINE EXHAUST EMISSIONS, --ETC(U)
MAY 78 DOT-FA74NA-1100
UNCLASSIFIED NREC-1238-11 FAA-RD-78-56-6 NL

2 OF 4
AD
A070578



JT9D-3A * 600 HOUR TEST SERIES *

MODE 2

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PB F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 2250. | .9380 | .7570 | 1172. | 4587. |
| 2 | 2290. | .9310 | .7680 | 1199. | 4797. |
| 3 | 2331. | .8630 | .7740 | 1145. | 4622. |
| 4 | 2203. | .9450 | .7530 | 1164. | 4855. |
| 6 | 2407. | .9150 | .8190 | 1181. | 5031. |
| 7 | 2409. | .9070 | .8260 | 1181. | 4855. |
| 9 | -2558. | .8980 | -.8830 | 1193. | 5022. |
| 10 | 2448. | .9590 | -.8680 | -1238. | 5116. |
| 11 | 2445. | .8590 | .8010 | 1147. | 5297. |
| 12 | 2539. | .9380 | -.8870 | -1222. | 5213. |
| 13 | 2222. | .9180 | .7730 | 1191. | 5033. |
| 16 | 2252. | .9380 | .7750 | 1163. | 4893. |
| 17 | 2350. | .9430 | .8110 | 1167. | 4928. |
| 20 | 2403. | .9190 | .8100 | 1153. | 5140. |
| 22 | 2367. | .9450 | .8230 | 1191. | 4986. |
| 23 | 2104. | .9350 | .7330 | 1212. | 4738. |
| 24 | 2160. | -.7550 | .7450 | 1179. | 4750. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 2

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.889 | 606.5 | 90.2 | 17.1 | 24.3 |
| 2 | 1.877 | 608.4 | 83.2 | 14.6 | 24.0 |
| 3 | 1.713 | 653.6 | 130.8 | 11.9 | 22.3 |
| 4 | 1.865 | 611.4 | 133.1 | 18.0 | 22.6 |
| 6 | 1.803 | 616.2 | 130.8 | 16.8 | 22.7 |
| 7 | 1.793 | 612.9 | 108.0 | 12.5 | 22.0 |
| 9 | 1.758 | 533.8 | 88.0 | 14.5 | 23.4 |
| 10 | 1.887 | 555.2 | 112.0 | 11.9 | 23.0 |
| 11 | 1.692 | 554.9 | 84.4 | 9.1 | 24.0 |
| 12 | 1.885 | 379.5 | 39.0 | 14.0 | -25.1 |
| 13 | 1.798 | 557.8 | 121.5 | 12.0 | 22.3 |
| 16 | 1.799 | 721.0 | 169.2 | 15.0 | 22.6 |
| 17 | 1.839 | 580.9 | 122.4 | 16.2 | 23.9 |
| 20 | 1.795 | 590.0 | 130.6 | 15.2 | 24.2 |
| 22 | 1.839 | 654.4 | 134.8 | 10.0 | 22.5 |
| 23 | 1.844 | 689.3 | 166.3 | -20.1 | 18.5 |
| 24 | -1.534 | -322.8 | 53.8 | 15.5 | 19.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 2

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3016. | 61.54 | 15.75 | 2.86 | 4.05 | 3.27 |
| 2 | 3018. | 62.26 | 14.63 | 2.46 | 4.04 | 1.44 |
| 3 | 2974. | 72.24 | 24.83 | 2.15 | 4.04 | 1.31 |
| 4 | 2998. | 62.54 | 23.38 | 3.02 | 3.80 | 1.69 |
| 6 | 2993. | 65.12 | 23.75 | 2.92 | 3.94 | 2.47 |
| 7 | 3004. | 65.34 | 19.77 | 2.19 | 3.85 | 1.69 |
| 9 | 3015. | 58.25 | 16.49 | 2.59 | 4.20 | 1.96 |
| 10 | 3016. | 56.48 | 19.58 | 1.98 | 3.85 | 2.37 |
| 11 | 3014. | 62.92 | 16.44 | 1.70 | 4.46 | .65 |
| 12 | -3077. | 39.42 | 6.96 | 2.38 | 4.28 | 1.55 |
| 13 | 3002. | 59.26 | 22.18 | 2.10 | 3.89 | 2.61 |
| 16 | 2958. | 75.44 | 30.42 | 2.57 | 3.89 | .93 |
| 17 | 3005. | 60.43 | 21.88 | 2.76 | 4.09 | 1.32 |
| 20 | 2994. | 62.64 | 23.83 | 2.65 | 4.21 | 1.45 |
| 22 | 2986. | 67.62 | 23.93 | 1.70 | 3.82 | 2.09 |
| 23 | 2967. | 70.60 | 29.26 | 3.39 | 3.39 | -3.65 |
| 24 | 3059. | 40.99 | 11.73 | 3.24 | 4.02 | 1.97 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 2

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .5980 | .4360 | 3.8470 | .5820 | .4190 | 4.1340 |
| 2 | .6260 | .4780 | 4.0310 | .6090 | .4600 | 4.3320 |
| 3 | .5640 | .4430 | 3.8770 | .5490 | .4260 | 4.1660 |
| 4 | .6060 | .4610 | 3.7620 | .6270 | .4730 | 4.3980 |
| 6 | .6210 | .5050 | 3.9460 | .6410 | .5170 | 4.6100 |
| 7 | .5870 | .4630 | 3.7670 | .6050 | .4730 | 4.3980 |
| 9 | .5800 | .4810 | 3.8430 | .6290 | .5140 | 4.5990 |
| 10 | .6340 | .5030 | 3.9100 | .6840 | .5390 | 4.7150 |
| 11 | .6230 | -.5680 | -4.2690 | .6540 | -.5870 | -4.9380 |
| 12 | .6610 | .5290 | 4.0310 | .6880 | .5640 | 4.8330 |
| 13 | .6000 | .4860 | 3.8150 | .6430 | .5170 | 4.6120 |
| 16 | .5760 | .4480 | 3.6200 | .6290 | .4820 | 4.4430 |
| 17 | .5840 | .4560 | 3.6520 | .6390 | .4910 | 4.4850 |
| 20 | .6210 | .5160 | 4.0700 | .6630 | .5450 | 4.7440 |
| 22 | .6030 | .4740 | 3.7660 | .6510 | .5050 | 4.5550 |
| 23 | .6050 | .4510 | 3.6390 | .6020 | .4480 | 4.2760 |
| 24 | -.5170 | .4500 | 3.6630 | .5170 | .4510 | 4.2870 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 2

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 63.38 | 16.38 | 3.30 | 4.68 | 1.99 |
| 2 | 64.02 | 15.22 | 2.83 | 4.66 | .66 |
| 3 | 74.22 | 25.83 | 2.49 | 4.67 | .92 |
| 4 | 60.53 | 22.79 | 3.79 | 4.77 | 1.58 |
| 6 | 63.13 | 23.21 | 3.66 | 4.94 | 1.73 |
| 7 | 63.39 | 19.35 | 2.74 | 4.83 | 1.32 |
| 9 | 53.72 | 15.44 | 3.33 | 5.39 | 1.72 |
| 10 | 52.36 | 18.29 | 2.57 | 4.98 | 1.99 |
| 11 | 59.86 | 15.92 | 2.11 | 5.54 | .65 |
| 12 | -36.72 | 6.52 | 3.07 | 5.51 | 1.55 |
| 13 | 55.32 | 20.84 | 2.72 | 5.05 | .26 |
| 16 | 69.09 | 28.28 | 3.39 | 5.13 | .53 |
| 17 | 55.29 | 20.30 | 3.64 | 5.40 | 1.32 |
| 20 | 59.66 | 22.57 | 3.31 | 5.27 | 1.45 |
| 22 | 62.69 | 22.42 | 2.21 | 4.96 | 1.32 |
| 23 | 70.92 | 29.45 | 3.98 | 3.98 | -3.65 |
| 24 | 40.97 | 11.73 | 3.79 | 4.71 | 1.06 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 600 HOUR TEST SERIES *

MODE 3

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 90.00 | 95.00 | 89.78 | 94.77 |
| 2 | -92.00 | 94.60 | -91.78 | 94.37 |
| 3 | 90.50 | 94.50 | 90.28 | 94.27 |
| 4 | 90.50 | 95.00 | 90.90 | 95.41 |
| 6 | 89.50 | 94.00 | 89.89 | 94.41 |
| 7 | 89.50 | 93.50 | 89.89 | 93.91 |
| 9 | 90.00 | 93.00 | 91.01 | 94.05 |
| 10 | 89.40 | 93.00 | 90.23 | 93.86 |
| 11 | 89.70 | 94.30 | 90.40 | 95.04 |
| 12 | 90.30 | 95.00 | 91.09 | 95.84 |
| 13 | 90.00 | 94.50 | 90.79 | 95.33 |
| 16 | 89.20 | 93.50 | 90.25 | 94.60 |
| 17 | 88.50 | 92.80 | 89.54 | 93.89 |
| 20 | 89.00 | 94.50 | 89.78 | 95.33 |
| 22 | 88.00 | 93.00 | 88.86 | 93.91 |
| 23 | 89.00 | 95.50 | 88.96 | 95.45 |
| 24 | 89.50 | 94.40 | 89.50 | 94.40 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 400 HOUR TEST SERIES *

MODE 3

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 15850. | 1.7960 | 1.9070 | 1871. | 1.400 | 40454. |
| 2 | 16100. | 1.9110 | 1.9460 | 1887. | 1.400 | 40454. |
| 3 | 16000. | 1.8970 | 1.9190 | 1858. | 1.400 | 40454. |
| 4 | 15900. | 1.9270 | 1.9340 | 1890. | 1.400 | 40669. |
| 6 | 15950. | 1.8330 | 1.9100 | 1838. | 1.400 | 40601. |
| 7 | 15750. | 1.8980 | 1.8910 | 1851. | 1.400 | 40575. |
| 9 | 15800. | 1.8000 | 1.8800 | 1842. | 1.400 | -40321. |
| 10 | 15450. | 1.8180 | 1.8700 | 1869. | 1.400 | 40723. |
| 11 | 15750. | 1.8310 | 1.8650 | 1849. | -1.403 | 40369. |
| 12 | 15750. | 1.7790 | 1.8970 | 1849. | 1.400 | 40723. |
| 13 | 15800. | 1.8260 | 1.9210 | 1889. | 1.400 | 40682. |
| 16 | 15500. | 1.8270 | 1.8420 | 1833. | 1.400 | 40394. |
| 17 | 15950. | 1.9140 | 1.8920 | 1820. | 1.400 | 40427. |
| 20 | 15700. | 1.8520 | 1.8780 | 1845. | 1.400 | 40494. |
| 22 | 15400. | 1.8320 | 1.8310 | 1818. | 1.400 | 40561. |
| 23 | 15900. | 1.9460 | 1.9310 | 1869. | 1.400 | 40845. |
| 24 | 15440. | 1.9300 | 1.8860 | 1885. | 1.400 | 40907. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 600 HOUR TEST SERIES *

MODE 3

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 16063. | 1.7880 | 1.8980 | 1862. | 40900. |
| 2 | 16317. | 1.9010 | 1.9370 | 1878. | 40900. |
| 3 | 16215. | 1.8880 | 1.9100 | 1849. | 40900. |
| 4 | 15921. | 1.9440 | 1.9510 | 1907. | 40900. |
| 6 | 15997. | 1.8490 | 1.9260 | 1854. | 40900. |
| 7 | 15807. | 1.9140 | 1.9070 | 1867. | 40900. |
| 9 | 15848. | 1.8410 | 1.9220 | 1883. | 40900. |
| 10 | 15374. | 1.8520 | 1.9050 | 1904. | 40900. |
| 11 | 15910. | 1.8600 | 1.8940 | 1878. | -41098. |
| 12 | 15681. | 1.8110 | 1.9300 | 1882. | 40900. |
| 13 | 15746. | 1.8580 | 1.9550 | -1922. | 40900. |
| 16 | 15512. | 1.8710 | 1.8860 | 1876. | 40900. |
| 17 | 15949. | -1.9590 | 1.9370 | 1863. | 40900. |
| 20 | 15719. | 1.8850 | 1.9110 | 1878. | 40900. |
| 22 | 15378. | 1.8680 | 1.8670 | 1854. | 40900. |
| 23 | 15929. | 1.9440 | 1.9290 | 1867. | 40900. |
| 24 | 15437. | 1.9300 | 1.8860 | 1885. | 40900. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 3

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 3.799 | 19.0 | 7.8 | 326.9 | 320.4 |
| 2 | 4.042 | 18.4 | 16.4 | 341.3 | 341.7 |
| 3 | 4.016 | 16.1 | 5.9 | 305.7 | 305.3 |
| 4 | 4.047 | -20.1 | -68.1 | 314.2 | 298.8 |
| 6 | 3.980 | 19.0 | 16.3 | 294.2 | 299.1 |
| 7 | 4.022 | 18.0 | 7.7 | 273.8 | 279.7 |
| 9 | 3.803 | 17.1 | 2.7 | 233.5 | 249.6 |
| 10 | 3.849 | 18.3 | 7.0 | 270.4 | 273.3 |
| 11 | 3.874 | 16.9 | 13.5 | 292.4 | 295.0 |
| 12 | 3.765 | -23.2 | 4.9 | 249.2 | 251.7 |
| 13 | 3.842 | 14.2 | 6.4 | 303.2 | 316.6 |
| 15 | 3.872 | 14.8 | 1.8 | 222.6 | 231.7 |
| 17 | 4.058 | -25.5 | 3.8 | 258.0 | 280.9 |
| 20 | 3.921 | -19.2 | 8.9 | 266.9 | 261.4 |
| 22 | 3.879 | 14.8 | 1.4 | 234.7 | 251.0 |
| 23 | 4.127 | -5.1 | 3.7 | 287.7 | 288.8 |
| 24 | 4.088 | -3.3 | 6.2 | 348.1 | 353.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 600 HOUR TEST SERIES *

MODE 3

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3152. | -1.00 | .71 | 28.36 | 28.36 | 19.61 |
| 2 | 3151. | .91 | 1.40 | 27.81 | 27.84 | 18.42 |
| 3 | 3153. | .80 | .51 | 25.10 | 25.10 | 12.50 |
| 4 | -3143. | -.99 | -5.75 | 25.38 | 25.38 | 16.23 |
| 6 | 3155. | -.98 | 1.45 | 25.01 | 25.43 | 17.39 |
| 7 | 3157. | .90 | .66 | 22.47 | 22.96 | 18.56 |
| 9 | 3149. | .90 | .24 | 20.21 | 21.60 | 14.47 |
| 10 | 3155. | .95 | .62 | 23.17 | 23.42 | 17.43 |
| 11 | 3153. | .88 | 1.20 | 24.88 | 25.10 | 14.60 |
| 12 | 3155. | -1.24 | .45 | 21.84 | 22.05 | 15.58 |
| 13 | 3153. | .84 | .57 | 25.88 | 27.02 | 10.26 |
| 16 | 3159. | .77 | .16 | 18.98 | 19.76 | 18.45 |
| 17 | 3158. | -1.26 | .32 | 20.99 | 22.85 | 25.26 |
| 20 | 3154. | -.98 | .78 | 22.45 | 22.45 | 12.91 |
| 22 | 3157. | .77 | .12 | 19.97 | 21.36 | 14.17 |
| 23 | 3157. | -.25 | .31 | 23.01 | 23.10 | 18.68 |
| 24 | 3154. | -.16 | .52 | 28.08 | 28.49 | 20.39 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 600 HOUR TEST SERIES *

MODE 3

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 83.0150 | 96.1370 | 88.6310 | 78.0170 | 91.4690 | 94.2030 |
| 2 | 108.5660 | 87.7180 | 83.4440 | 101.5120 | 83.4770 | 88.7100 |
| 3 | 102.1290 | 85.7180 | 82.1920 | 95.5710 | 81.5780 | 87.3840 |
| 4 | 125.5610 | 101.1620 | 86.9320 | -141.1750 | 105.7680 | 103.7180 |
| 6 | 78.6500 | 80.8570 | 74.9350 | 87.2370 | 84.2030 | 89.2150 |
| 7 | 86.9220 | 72.0940 | 69.5200 | 96.9040 | 74.9500 | 82.6890 |
| 9 | 61.7080 | 69.3180 | 67.3140 | 79.7560 | 77.4380 | 84.4640 |
| 10 | 63.9790 | 66.8100 | 65.5420 | 79.7370 | 74.1710 | 82.1300 |
| 11 | 84.1820 | 91.0550 | 81.8870 | 100.9130 | 97.1160 | 98.0050 |
| 12 | 81.5430 | 104.8340 | 88.4480 | 100.49[illegible] | -116.1510 | -110.4140 |
| 13 | 85.2510 | 93.9410 | 81.4250 | 105.7080 | 103.7910 | 102.4240 |
| 16 | 72.8210 | 77.9030 | 71.0460 | 94.3180 | 87.9620 | 91.8090 |
| 17 | 82.6000 | 66.1590 | 63.9300 | 111.5270 | 74.6740 | 82.4910 |
| 20 | 92.4790 | 94.7290 | 84.4850 | 114.8900 | 103.7910 | 102.4240 |
| 22 | 64.7180 | 67.6110 | 65.6380 | 84.1430 | 74.9740 | 82.7060 |
| 23 | -143.5450 | 107.6100 | 88.9780 | -142.0660 | 106.7000 | 104.3270 |
| 24 | 111.1370 | 83.9760 | 76.1000 | 111.5460 | 84.0010 | 89.0750 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 60C HOUR TEST SERIES *

MODE 3

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | -1.07 | .74 | 30.15 | 30.15 | 13.14 |
| 2 | -.98 | 1.47 | 29.56 | 29.60 | 14.45 |
| 3 | .86 | .53 | 26.68 | 26.68 | 11.32 |
| 4 | .88 | -5.50 | 30.29 | 30.29 | 10.91 |
| 6 | .89 | 1.39 | 29.78 | 30.28 | 13.86 |
| 7 | .81 | .63 | 26.73 | 27.31 | 10.93 |
| 9 | .70 | .22 | 27.41 | 29.30 | 10.77 |
| 10 | .76 | .56 | 31.38 | 31.72 | 14.17 |
| 11 | .73 | 1.13 | 32.18 | 32.46 | 11.11 |
| 12 | -1.01 | .41 | 29.46 | 29.75 | 10.60 |
| 13 | .68 | .52 | -35.18 | -36.73 | 5.52 |
| 16 | .58 | .14 | 24.53 | 25.54 | 8.23 |
| 17 | -.94 | .29 | 29.26 | 31.86 | 18.37 |
| 20 | .79 | .71 | 29.41 | 29.41 | 10.77 |
| 22 | .61 | .11 | 27.19 | 29.08 | 11.40 |
| 23 | -.25 | .31 | 26.98 | 27.08 | 15.83 |
| 24 | -.16 | .52 | 32.86 | 33.35 | 10.82 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 4

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 85.40 | 92.70 | 85.19 | 92.49 |
| 2 | 85.50 | 93.00 | 85.29 | 92.78 |
| 3 | 85.30 | 92.70 | 85.10 | 92.49 |
| 4 | 85.00 | 93.00 | 85.37 | 93.41 |
| 6 | 84.00 | 92.50 | 84.37 | 92.90 |
| 7 | 84.00 | 91.50 | 84.37 | 91.90 |
| 9 | 84.50 | 91.50 | 85.45 | 92.53 |
| 10 | 83.50 | 91.10 | 84.28 | 91.95 |
| 11 | 83.50 | 91.60 | 84.15 | 92.31 |
| 12 | 84.70 | 93.00 | 85.44 | 93.82 |
| 13 | 84.50 | 93.00 | 85.24 | 93.82 |
| 16 | 83.00 | 92.00 | 83.98 | 93.08 |
| 20 | 83.00 | 91.50 | 83.73 | 92.30 |
| 22 | 82.50 | 92.00 | 83.31 | 92.90 |
| 23 | 84.00 | 93.50 | 83.96 | 93.45 |
| 24 | 84.00 | 92.00 | 84.00 | 92.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 4

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | FPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 13225. | 1.6330 | 1.7730 | 1773. | 1.310 | 34077. |
| 2 | 13200. | 1.7060 | 1.7730 | 1781. | 1.310 | 34077. |
| 3 | 13200. | 1.6860 | 1.7640 | 1763. | 1.310 | 34077. |
| 4 | 13100. | 1.6760 | 1.7690 | 1781. | 1.310 | 34259. |
| 6 | 13100. | 1.6490 | 1.7460 | 1741. | 1.310 | 34202. |
| 7 | 13100. | 1.7170 | 1.7500 | 1752. | 1.310 | 34179. |
| 9 | 13000. | 1.6230 | 1.7220 | 1745. | 1.31[illegible] | 33965. |
| 10 | 12850. | 1.6450 | 1.7280 | 1763. | 1.310 | 34304. |
| 11 | 12850. | 1.6510 | 1.7070 | 1746. | 1.306 | 33533. |
| 12 | 12900. | 1.6080 | 1.7480 | 1734. | 1.300 | 33521. |
| 13 | 13100. | 1.6570 | 1.7670 | 1775. | 1.310 | 34270. |
| 16 | 12750. | 1.6530 | 1.7100 | 1727. | 1.300 | -33250. |
| 20 | 12700. | 1.6540 | 1.6850 | 1736. | 1.310 | 34111. |
| 22 | 12700. | 1.6440 | 1.6840 | 1728. | 1.310 | 34168. |
| 23 | 12900. | 1.7080 | 1.7390 | 1759. | 1.310 | 34407. |
| 24 | -12240. | 1.6100 | 1.6460 | 1748. | 1.310 | 34459. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 4

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 13403. | 1.6250 | 1.7450 | 1765. | 34453. |
| 2 | 13378. | 1.6980 | 1.7450 | 1772. | 34453. |
| 3 | 13378. | 1.6780 | 1.7560 | 1754. | 34453. |
| 4 | 13117. | 1.6910 | 1.7850 | 1796. | 34453. |
| 6 | 13139. | 1.6640 | 1.7610 | 1756. | 34453. |
| 7 | 13148. | 1.7320 | 1.7660 | 1767. | 34453. |
| 9 | 13040. | 1.6600 | 1.7610 | 1784. | 34453. |
| 10 | 12787. | 1.6760 | 1.7600 | 1795. | 34453. |
| 11 | 12981. | 1.6770 | 1.7340 | 1774. | 34139. |
| 12 | 12843. | 1.6370 | 1.7790 | 1764. | 33667. |
| 13 | 13055. | 1.6970 | 1.7980 | 1806. | 34453. |
| 16 | 12760. | 1.6920 | 1.7500 | 1767. | 33667. |
| 20 | 12716. | 1.6840 | 1.7140 | 1766. | 34453. |
| 22 | 12682. | 1.6760 | 1.7170 | 1762. | 34453. |
| 23 | 12923. | 1.7070 | 1.7370 | 1757. | 34453. |
| 24 | -12238. | 1.6100 | -1.6460 | 1748. | 34453. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 4

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 3.448 | -18.7 | 4.0 | 228.7 | 230.5 |
| 2 | 3.604 | 17.7 | 8.7 | 226.2 | 231.9 |
| 3 | 3.563 | 15.4 | 3.6 | 201.4 | 204.7 |
| 4 | 3.543 | 17.4 | 12.0 | 210.5 | 196.7 |
| 6 | 3.486 | 18.1 | 8.3 | 200.9 | 202.1 |
| 7 | 3.633 | 17.0 | 4.2 | 189.1 | 193.6 |
| 9 | 3.423 | 17.7 | 2.0 | -146.7 | 170.7 |
| 10 | 3.476 | 18.7 | 3.6 | 192.7 | 196.5 |
| 11 | 3.488 | 17.2 | 6.6 | 197.5 | 199.3 |
| 12 | 3.398 | -21.7 | 2.9 | 172.5 | 176.4 |
| 13 | 3.501 | 16.4 | 3.7 | 215.9 | 222.7 |
| 16 | 3.496 | 16.4 | 1.6 | 161.4 | 160.0 |
| 20 | 3.496 | 18.1 | 4.1 | 180.7 | 176.8 |
| 22 | 3.475 | 14.7 | .9 | 165.6 | 173.4 |
| 23 | 3.614 | 6.5 | 2.1 | 193.6 | 192.9 |
| 24 | 3.400 | 11.2 | 5.5 | 214.2 | 216.2 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 4

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3153. | 1.09 | .40 | 21.86 | 22.03 | 14.29 |
| 2 | 3152. | .98 | .83 | 20.68 | 21.20 | 15.71 |
| 3 | 3154. | .87 | .35 | 18.64 | 18.94 | 8.91 |
| 4 | 3156. | .99 | 1.17 | 19.60 | 19.60 | 8.85 |
| 6 | 3157. | 1.04 | .82 | 19.02 | 19.13 | 13.02 |
| 7 | 3158. | .94 | .39 | 17.18 | 17.60 | 15.61 |
| 9 | 3149. | 1.04 | .20 | 14.11 | 16.42 | 11.27 |
| 10 | 3156. | 1.08 | .36 | 18.29 | 18.64 | 15.47 |
| 11 | 3155. | .99 | .65 | 18.68 | 18.85 | 11.04 |
| 12 | 3155. | -1.28 | .29 | 16.75 | 17.13 | 10.16 |
| 13 | 3153. | .94 | .37 | 20.33 | 20.97 | 5.39 |
| 16 | 3159. | .94 | .16 | 15.25 | 15.25 | 9.34 |
| 20 | 3155. | 1.04 | .40 | 17.05 | 17.05 | 9.58 |
| 22 | 3157. | .85 | .09 | 15.73 | 16.46 | 11.88 |
| 23 | 3157. | .36 | .20 | 17.68 | 17.68 | 15.88 |
| 24 | 3153. | .66 | .56 | 20.77 | 20.97 | 4.90 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 4

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 36.2440 | 55.9130 | 62.4070 | 34.3580 | 53.2650 | 66.4190 |
| 2 | 45.6540 | 60.1410 | 65.3680 | 43.1520 | 57.2830 | 69.5580 |
| 3 | 41.2010 | 55.9130 | 62.4070 | 38.9820 | 53.2650 | 66.4190 |
| 4 | 43.3510 | 63.8250 | 64.3420 | 47.3880 | 66.5980 | 76.6040 |
| 6 | 37.2660 | 56.8060 | 59.6740 | 40.5650 | 59.0690 | 70.9320 |
| 7 | 37.1810 | 45.3210 | 51.6800 | 40.5950 | 47.0250 | 61.3430 |
| 9 | 30.4310 | 48.4980 | 53.5960 | 37.6230 | 53.9730 | 66.9770 |
| 10 | 29.6740 | 42.9060 | 49.4410 | 35.6030 | 47.4490 | 61.6980 |
| 11 | 32.6550 | 48.2190 | 54.3920 | 37.7320 | 51.1840 | 64.7670 |
| 12 | 37.4660 | 66.4920 | 65.6100 | 44.5600 | 73.3760 | 81.5570 |
| 13 | 42.0360 | 66.6110 | 65.0430 | -50.3940 | 73.3760 | 81.5570 |
| 16 | 35.6210 | 54.8320 | 56.6620 | 44.9110 | 61.6650 | 72.9100 |
| 20 | 32.2900 | 46.8760 | 53.6780 | 38.2970 | 51.0540 | 64.6630 |
| 22 | 34.5060 | 53.3340 | 56.3920 | 41.8230 | 59.0120 | 70.8890 |
| 23 | -50.1820 | 67.9340 | 65.8080 | -49.7420 | 67.3740 | 77.1780 |
| 24 | 30.7180 | 47.9320 | 53.0660 | 30.7770 | 47.9470 | 62.1140 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 4

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRF CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | -1.15 | .42 | 23.27 | 23.45 | 11.77 |
| 2 | -1.04 | .87 | 22.01 | 22.56 | 10.67 |
| 3 | .92 | .37 | 19.84 | 20.16 | 7.31 |
| 4 | .90 | 1.12 | 23.34 | 23.34 | 6.73 |
| 6 | .96 | .79 | 22.61 | 22.74 | 10.48 |
| 7 | .86 | .38 | 20.39 | 20.89 | 12.56 |
| 9 | .84 | .18 | 17.63 | 20.52 | 9.66 |
| 10 | .90 | .32 | 22.82 | 23.26 | 11.11 |
| 11 | .86 | .61 | 22.24 | 22.44 | 10.02 |
| 12 | -1.08 | .27 | 20.82 | 21.29 | 8.63 |
| 13 | .79 | .33 | 25.49 | 26.29 | 4.53 |
| 16 | .75 | .14 | 19.62 | 19.62 | 8.18 |
| 20 | .98 | .37 | 20.54 | 20.54 | 9.58 |
| 22 | .70 | .08 | 19.77 | 20.69 | 9.85 |
| 23 | .36 | .20 | 20.73 | 20.73 | 12.56 |
| 24 | .66 | .56 | 24.31 | 24.54 | 3.65 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 5

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | -72.40 | 89.50 | -72.23 | 89.29 |
| 2 | 75.50 | 89.60 | 75.32 | 89.38 |
| 3 | 75.50 | 90.00 | 75.32 | 89.78 |
| 4 | 74.00 | 89.50 | 74.32 | 89.89 |
| 6 | 74.50 | 89.50 | 74.83 | 89.89 |
| 7 | 76.50 | 89.00 | 76.83 | 89.39 |
| 9 | 76.00 | 89.00 | 76.86 | 90.00 |
| 10 | 75.00 | -87.90 | 75.70 | 88.72 |
| 11 | 75.30 | 88.40 | 75.89 | 89.09 |
| 12 | 75.80 | 90.00 | 76.47 | -90.79 |
| 13 | 74.50 | 89.00 | 75.15 | 89.78 |
| 16 | 76.00 | 89.30 | 76.89 | 90.35 |
| 17 | 76.00 | 88.50 | 76.89 | 89.54 |
| 20 | 73.50 | 88.00 | 74.15 | 88.77 |
| 22 | -71.50 | 88.50 | -72.20 | 89.37 |
| 23 | 74.50 | 89.50 | 74.46 | 89.46 |
| 24 | 76.00 | 89.70 | 76.00 | 89.70 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 600 HOUR TEST SERIES •

MODE 5

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 9600. | 1.4200 | 1.5350 | 1615. | 1.200 | 25519. |
| 2 | 9200. | 1.4310 | 1.5330 | 1608. | 1.185 | 23916. |
| 3 | 9300. | 1.4010 | 1.5230 | 1599. | 1.190 | 24450. |
| 4 | 9100. | 1.4050 | 1.4940 | 1592. | 1.190 | 24580. |
| 6 | 9350. | 1.3940 | 1.5310 | 1586. | 1.190 | 24540. |
| 7 | 10000. | 1.4770 | 1.5690 | 1615. | 1.210 | 24375. |
| 9 | 9500. | 1.3790 | 1.5050 | 1599. | 1.200 | 25434. |
| 10 | 9400. | 1.4060 | 1.5130 | 1617. | 1.200 | 25688. |
| 11 | 9500. | 1.4120 | 1.5100 | 1601. | 1.198 | 25130. |
| 12 | 9600. | 1.3800 | 1.5360 | 1597. | 1.200 | 25688. |
| 13 | 8900. | 1.3750 | 1.4580 | 1584. | 1.190 | 24589. |
| 16 | 9620. | 1.4310 | 1.4900 | 1592. | 1.210 | 26258. |
| 17 | 10000. | 1.4760 | 1.5450 | 1579. | 1.210 | 26279. |
| 20 | 9100. | 1.3980 | 1.4820 | 1579. | 1.190 | 24475. |
| 22 | 8900. | 1.3660 | -1.4360 | -1547. | 1.190 | 24515. |
| 23 | 9200. | 1.4380 | 1.4470 | 1606. | 1.210 | 24551. |
| 24 | 9500. | 1.3460 | 1.5050 | 1622. | 1.210 | 24591. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 5

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 9729. | 1.4130 | 1.5270 | 1607. | 25800. |
| 2 | 9324. | 1.4240 | 1.5260 | 1600. | 24180. |
| 3 | 9425. | 1.3940 | 1.5160 | 1591. | 24720. |
| 4 | 9112. | 1.4170 | 1.5070 | 1605. | 24720. |
| 6 | 9378. | 1.4060 | 1.5440 | 1600. | 24720. |
| 7 | 10036. | 1.4900 | 1.5830 | 1629. | 26587. |
| 9 | 9529. | 1.4100 | 1.5400 | 1635. | 25800. |
| 10 | 9354. | 1.4320 | 1.5410 | 1647. | 25800. |
| 11 | 9597. | 1.4340 | 1.5330 | 1626. | 25584. |
| 12 | 9558. | 1.4040 | 1.5630 | 1625. | 25800. |
| 13 | 8870. | 1.4000 | 1.4840 | 1612. | 24720. |
| 16 | 9627. | 1.4650 | 1.5260 | 1629. | 26587. |
| 17 | 9999. | 1.5110 | 1.5820 | 1616. | 26587. |
| 20 | 9111. | 1.4230 | 1.5080 | 1607. | 24720. |
| 22 | 8887. | 1.3930 | 1.4640 | 1577. | 24720. |
| 23 | 9217. | 1.4360 | -1.4460 | 1604. | 26587. |
| 24 | 9498. | 1.3460 | 1.5050 | 1622. | 26587. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 2.991 | 23.8 | 2.7 | 131.1 | 134.6 |
| 2 | 3.013 | 22.8 | 4.4 | 118.1 | 125.2 |
| 3 | 2.951 | 21.9 | 2.3 | 105.2 | 110.8 |
| 4 | 2.962 | 24.0 | 4.5 | 113.9 | 114.1 |
| 6 | 2.938 | 24.1 | 4.6 | 112.5 | 116.0 |
| 7 | 3.118 | 20.1 | 2.1 | 112.7 | 118.0 |
| 9 | 2.899 | -26.7 | 1.8 | 85.3 | 99.7 |
| 10 | 2.963 | 24.0 | 2.1 | 111.1 | 114.7 |
| 11 | 2.976 | 20.8 | 3.5 | 112.6 | 115.6 |
| 12 | 2.908 | 24.8 | 1.7 | 100.4 | 104.0 |
| 13 | 2.896 | 25.3 | 2.6 | 104.0 | 109.7 |
| 16 | 3.019 | 25.0 | 1.4 | 103.2 | 100.8 |
| 17 | 3.114 | -37.1 | 2.9 | 110.4 | 120.7 |
| 20 | 2.947 | -26.6 | 2.0 | 98.6 | 100.4 |
| 22 | 2.879 | 23.0 | .8 | 89.8 | 94.2 |
| 23 | 3.032 | 13.1 | 2.5 | 106.6 | 106.3 |
| 24 | 2.833 | 15.4 | 5.2 | 124.9 | 127.0 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3153. | 1.60 | .31 | 14.45 | 14.83 | 8.50 |
| 2 | 3152. | 1.52 | .51 | 12.91 | 13.69 | 8.94 |
| 3 | 3153. | 1.49 | .26 | 11.75 | 12.37 | 3.54 |
| 4 | 3156. | 1.63 | .76 | 12.69 | 12.71 | 4.76 |
| 6 | 3156. | 1.65 | .55 | 12.64 | 13.03 | 7.19 |
| 7 | 3158. | 1.29 | .23 | 11.93 | 12.50 | -13.16 |
| 9 | 3148. | -1.84 | .22 | 9.66 | 11.31 | 7.61 |
| 10 | 3155. | 1.63 | .25 | 12.37 | 12.77 | 9.54 |
| 11 | 3155. | 1.41 | .41 | 12.48 | 12.81 | 5.24 |
| 12 | 3155. | 1.71 | .20 | 11.38 | 11.80 | 3.97 |
| 13 | 3152. | 1.76 | .31 | 11.83 | 12.48 | 4.41 |
| 16 | 3157. | 1.67 | .17 | 11.28 | 11.28 | 8.01 |
| 17 | 3156. | -2.39 | .32 | 11.70 | 12.78 | 11.97 |
| 20 | 3155. | -1.81 | .23 | 11.04 | 11.24 | 5.77 |
| 22 | 3155. | 1.60 | .09 | 10.29 | 10.79 | 6.01 |
| 23 | 3156. | .87 | .28 | 11.60 | 11.60 | 9.21 |
| 24 | 3152. | 1.09 | .63 | 14.52 | 14.77 | 3.92 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 5

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 14.7280 | 29.3130 | 41.4590 | 14.0810 | 27.9650 | 44.1910 |
| 2 | 15.2290 | 29.8970 | 41.9710 | 14.5550 | 28.5210 | 44.7360 |
| 3 | 15.2060 | 32.3710 | 44.1090 | 14.5400 | 30.8760 | 47.0060 |
| 4 | 14.4030 | 30.3370 | 40.1530 | 15.3930 | 31.5580 | 47.6500 |
| 6 | 14.1260 | 30.4270 | 40.1960 | 15.0700 | 31.5580 | 47.6500 |
| 7 | 15.4480 | 27.5630 | 37.7870 | 16.5370 | 28.5420 | 44.7560 |
| 9 | 13.0680 | 29.1710 | 38.9010 | 15.4290 | 32.2910 | 48.3370 |
| 10 | 11.7150 | 22.7030 | 33.2040 | 13.5100 | 24.9710 | 41.1970 |
| 11 | 12.7740 | 25.4630 | 36.4090 | 14.2700 | 26.9040 | 43.1410 |
| 12 | 14.8190 | 34.4750 | 43.2100 | 16.9950 | -37.8380 | -53.4010 |
| 13 | 12.8470 | 28.2200 | 37.7640 | 14.6810 | 30.8660 | 46.9970 |
| 16 | 14.9650 | 31.0030 | 39.5230 | 17.9790 | 34.6480 | 50.5170 |
| 17 | 14.5880 | 26.3260 | 35.7280 | 17.6080 | 29.4140 | 45.6050 |
| 20 | 11.7590 | 23.3250 | 34.6500 | 13.3920 | 25.2600 | 41.4900 |
| 22 | 11.8780 | 25.8490 | 35.7530 | 13.7240 | 28.4130 | 44.630 |
| 23 | 15.1540 | 29.1570 | 38.4680 | 15.0450 | 28.9280 | 45.1330 |
| 24 | 13.1460 | 30.3400 | 39.7320 | 13.1660 | 30.3500 | 46.5060 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 5

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 1.67 | .33 | 15.40 | 15.80 | 6.87 |
| 2 | 1.59 | .53 | 13.76 | 14.59 | 8.94 |
| 3 | 1.55 | .28 | 13.53 | 14.25 | 2.67 |
| 4 | 1.52 | .73 | 15.06 | 15.08 | 3.46 |
| 6 | 1.54 | .53 | 14.98 | 15.45 | 7.19 |
| 7 | 1.21 | .22 | 14.13 | 14.80 | 11.05 |
| 9 | 1.56 | .20 | 12.03 | 14.06 | 6.08 |
| 10 | 1.41 | .23 | 15.34 | 15.85 | 8.44 |
| 11 | 1.26 | .39 | 14.78 | 15.18 | 5.24 |
| 12 | 1.49 | .18 | 14.07 | 14.58 | 3.97 |
| 13 | 1.54 | .28 | 14.73 | 15.53 | 3.32 |
| 16 | 1.39 | .15 | 14.42 | 14.42 | 6.80 |
| 17 | -1.98 | .29 | 14.94 | 16.32 | 10.31 |
| 20 | 1.59 | .21 | 13.22 | 13.45 | 5.77 |
| 22 | 1.39 | .08 | 12.84 | 13.47 | 5.97 |
| 23 | .87 | .28 | 13.61 | 13.61 | 9.21 |
| 24 | 1.09 | .63 | 17.00 | 17.29 | 3.62 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 6

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 56.00 | 82.70 | 55.87 | 82.50 |
| 2 | 56.90 | 85.00 | 56.76 | 84.80 |
| 3 | 57.00 | 84.00 | 56.86 | 83.80 |
| 4 | 57.50 | 85.00 | 57.75 | 85.37 |
| 6 | 55.50 | 84.50 | 55.74 | 84.87 |
| 7 | 56.50 | 83.50 | 56.75 | 83.86 |
| 9 | 57.00 | 83.00 | 57.64 | 83.94 |
| 10 | 54.50 | 81.70 | 55.01 | 82.46 |
| 11 | 58.30 | 82.60 | 58.75 | 83.24 |
| 12 | 57.00 | 83.00 | 57.50 | 83.73 |
| 13 | 57.00 | 84.00 | 57.50 | 84.74 |
| 16 | 56.70 | 83.50 | 57.37 | 84.48 |
| 17 | 56.00 | 82.00 | 56.66 | 82.97 |
| 20 | 57.50 | 84.30 | 58.01 | 85.04 |
| 22 | 55.10 | 84.00 | 55.64 | 84.82 |
| 23 | 56.00 | 85.00 | 55.97 | 84.96 |
| 24 | 58.00 | 84.00 | 58.00 | 84.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 600 HOUR TEST SERIES *

MODE 6

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 5100. | 1.1360 | 1.2120 | 1374. | 1.080 | 12106. |
| 2 | 5350. | 1.1900 | 1.2490 | 1421. | 1.085 | 12789. |
| 3 | 5300. | 1.1300 | 1.2000 | 1388. | 1.085 | 12789. |
| 4 | 5400. | 1.1560 | 1.3020 | 1397. | 1.080 | 12171. |
| 6 | 5100. | 1.1380 | 1.2150 | 1372. | 1.080 | 12152. |
| 7 | 5400. | 1.1580 | 1.2310 | 1390. | 1.085 | 12827. |
| 9 | 5100. | 1.0850 | 1.2080 | 1376. | 1.080 | 12067. |
| 10 | 4900. | 1.1120 | 1.1800 | 1394. | 1.080 | 12187. |
| 11 | 5250. | 1.0900 | 1.1650 | 1356. | -1.088 | -13107. |
| 12 | 5380. | 1.1560 | 1.2960 | 1392. | 1.080 | 12187. |
| 13 | 5300. | 1.1610 | 1.2780 | 1397. | 1.080 | 12175. |
| 16 | 5200. | 1.1420 | 1.1850 | 1359. | 1.085 | 12770. |
| 17 | 5300. | 1.1580 | 1.2310 | 1350. | 1.082 | 12371. |
| 20 | 5500. | 1.1900 | 1.3160 | 1338. | 1.080 | 12118. |
| 22 | 5400. | 1.1450 | 1.2320 | 1367. | 1.086 | -12960. |
| 23 | 5200. | 1.1840 | 1.2630 | 1406. | 1.080 | 12224. |
| 24 | 5330. | 1.0410 | 1.2090 | 1403. | -1.090 | -13622. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 6

| UNIT | CORR FU FL LBM/HR | COR CH F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 5169. | 1.1300 | 1.2060 | 1367. | 12240. |
| 2 | 5422. | 1.1840 | 1.2430 | 1414. | 12930. |
| 3 | 5270. | 1.1250 | 1.1940 | 1381. | 12930. |
| 4 | 5407. | 1.1640 | 1.3130 | 1409. | 12240. |
| 6 | 5115. | 1.1480 | 1.2260 | 1384. | 12240. |
| 7 | 5420. | 1.1690 | 1.2620 | 1402. | 12930. |
| 9 | 5116. | 1.1100 | 1.2360 | 1407. | 12240. |
| 10 | 4876. | 1.1330 | 1.2020 | 1420. | 12240. |
| 11 | 5303. | 1.1070 | 1.1830 | 1377. | -13344. |
| 12 | 5356. | 1.1770 | 1.3190 | 1416. | 12240. |
| 13 | 5282. | 1.1810 | 1.3000 | 1422. | 12240. |
| 16 | 5204. | 1.1690 | 1.2130 | 1391. | 12930. |
| 17 | 5300. | 1.1850 | 1.2600 | 1382. | 12516. |
| 20 | 5507. | 1.2110 | 1.3390 | 1413. | 12240. |
| 22 | 5342. | 1.1670 | 1.2560 | 1393. | 13068. |
| 23 | 5209. | 1.1820 | 1.2610 | 1405. | 12240. |
| 24 | 5329. | 1.0410 | 1.2090 | 1403. | -13620. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 6

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 2.379 | 84.1 | 3.8 | 47.0 | 55.9 |
| 2 | 2.494 | 76.9 | 4.0 | 50.7 | -60.8 |
| 3 | 2.365 | 98.0 | 4.5 | 41.0 | 50.7 |
| 4 | 2.425 | 79.7 | 5.9 | 49.1 | 54.9 |
| 6 | 2.384 | 100.6 | 5.7 | 43.0 | 50.9 |
| 7 | 2.430 | 82.5 | 2.9 | 41.2 | 50.0 |
| 9 | 2.264 | 114.9 | 5.3 | 36.8 | 45.0 |
| 10 | 2.327 | 112.8 | 5.9 | 38.9 | 49.3 |
| 11 | 2.284 | 75.9 | 3.9 | 45.0 | 54.4 |
| 12 | 2.426 | 64.4 | 2.4 | 45.6 | 53.0 |
| 13 | 2.431 | 87.1 | 4.5 | 46.2 | 59.5 |
| 16 | 2.389 | -134.5 | 6.1 | 41.9 | 47.7 |
| 17 | 2.424 | 113.7 | 6.9 | 41.1 | 52.1 |
| 20 | 2.495 | 86.4 | 4.2 | 47.6 | 56.1 |
| 22 | 2.399 | 89.8 | 2.7 | 40.8 | 50.2 |
| 23 | 2.482 | 80.4 | 6.2 | 48.8 | 50.7 |
| 24 | 2.179 | 53.0 | 6.5 | 49.9 | 54.2 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 6

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3143. | 7.07 | .54 | 6.50 | 7.72 | 4.08 |
| 2 | 3145. | 6.17 | .56 | 6.68 | 8.01 | 3.50 |
| 3 | 3141. | 8.28 | .65 | 5.69 | 7.04 | 1.32 |
| 4 | 3148. | 6.58 | .84 | 6.66 | 7.44 | 2.67 |
| 6 | 3145. | 8.45 | .82 | 5.93 | 7.02 | 4.79 |
| 7 | 3149. | 6.80 | .43 | 5.59 | 6.77 | -6.17 |
| 9 | -3133. | 10.12 | .81 | 5.32 | 6.51 | 1.56 |
| 10 | 3141. | 9.69 | .87 | 5.49 | 6.96 | 2.89 |
| 11 | 3146. | 6.66 | .59 | 6.49 | 7.84 | 2.09 |
| 12 | 3149. | 5.32 | .33 | 6.18 | 7.19 | 4.17 |
| 13 | 3143. | 7.17 | .64 | 6.24 | 8.04 | 1.31 |
| 16 | 3140. | -11.25 | .88 | 5.76 | 6.55 | 2.24 |
| 17 | 3143. | 9.38 | .97 | 5.57 | 7.06 | 2.52 |
| 20 | 3146. | 6.93 | .58 | 6.27 | 7.39 | 3.64 |
| 22 | 3145. | 7.09 | .38 | 5.60 | 6.87 | 4.83 |
| 23 | 3146. | 6.49 | .85 | 6.46 | 6.72 | 3.82 |
| 24 | 3145. | 4.87 | 1.03 | -7.53 | 8.17 | 1.96 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 6

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 3.9010 | 7.5520 | 18.1430 | 3.7650 | 7.2250 | 19.3980 |
| 2 | 5.5970 | 11.9470 | 23.8470 | 5.3910 | 11.4200 | 25.4710 |
| 3 | 4.5480 | 9.8120 | 21.1780 | 4.3870 | 9.3830 | 22.6300 |
| 4 | 5.3700 | 12.3590 | 23.1120 | 5.6510 | 12.8120 | 27.3260 |
| 6 | 4.9230 | 11.2170 | 21.7690 | 5.1670 | 11.5890 | 25.7000 |
| 7 | 4.4790 | 9.2190 | 19.3420 | 4.6990 | 9.5060 | 22.8070 |
| 9 | 3.8760 | 8.8130 | 18.7440 | 4.3700 | 9.6400 | 22.9980 |
| 10 | 3.3870 | 6.5760 | 15.7200 | 3.7580 | 7.1610 | 19.2990 |
| 11 | 3.7080 | 8.0160 | 18.0390 | 4.0040 | 8.4040 | 21.1970 |
| 12 | 4.2140 | 8.5260 | 19.3750 | 4.6740 | 9.2560 | 22.4480 |
| 13 | 4.8000 | 10.4000 | 20.4920 | 5.3310 | 11.2880 | 25.2920 |
| 16 | 4.4370 | 9.7120 | 19.4310 | 5.0710 | 10.7240 | 24.5190 |
| 17 | 3.7680 | 7.2050 | 16.2920 | 4.3000 | 7.9430 | 20.5050 |
| 20 | 5.2120 | 11.1410 | 22.0540 | 5.7840 | 11.9960 | 26.2470 |
| 22 | 4.7120 | 10.5250 | 20.6390 | 5.2790 | 11.4790 | 25.5510 |
| 23 | 5.5250 | 11.8900 | 22.1390 | 5.4920 | 11.8010 | 25.9850 |
| 24 | 4.0180 | 9.7590 | 19.7970 | 4.0220 | 9.7620 | 23.1730 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 6

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 7.33 | .57 | 7.46 | 8.86 | 4.08 |
| 2 | 6.41 | .58 | 7.67 | 9.19 | 1.99 |
| 3 | 8.58 | .68 | 6.53 | 8.08 | 1.32 |
| 4 | 6.26 | .81 | 8.45 | 9.45 | 2.00 |
| 6 | 8.05 | .79 | 7.52 | 8.91 | 4.28 |
| 7 | 6.49 | .40 | 7.07 | 8.57 | -6.17 |
| 9 | 8.97 | .74 | 7.01 | 8.58 | .92 |
| 10 | 8.73 | .79 | 7.24 | 9.17 | 2.27 |
| 11 | 6.16 | .56 | 8.19 | 9.89 | 2.09 |
| 12 | 4.80 | .31 | 8.11 | 9.43 | 2.68 |
| 13 | 6.45 | .59 | 8.28 | -10.66 | 1.31 |
| 16 | 9.84 | .80 | 7.81 | 8.88 | 2.14 |
| 17 | 8.22 | .88 | 7.54 | 9.54 | 2.27 |
| 20 | 6.25 | .54 | 8.02 | 9.45 | 2.00 |
| 22 | 6.69 | .35 | 7.44 | 9.14 | 4.02 |
| 23 | 6.53 | .86 | 7.59 | 7.89 | 3.82 |
| 24 | 4.87 | 1.03 | 8.81 | 9.57 | 1.87 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 7

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 31.00 | 69.00 | 30.93 | 68.83 |
| 2 | 29.50 | 68.70 | 29.43 | 68.54 |
| 3 | 33.50 | 69.30 | 33.42 | 69.13 |
| 4 | 30.50 | 69.00 | 30.63 | 69.30 |
| 6 | 29.50 | 68.50 | 29.63 | 68.80 |
| 7 | 33.00 | 69.00 | 33.14 | 69.30 |
| 9 | 33.50 | 69.00 | 33.88 | 69.78 |
| 10 | -34.50 | 69.20 | -34.82 | 69.84 |
| 11 | 33.00 | 68.50 | 33.26 | 69.03 |
| 12 | -35.00 | 69.00 | -35.31 | 69.61 |
| 13 | 32.50 | 69.50 | 32.79 | 70.11 |
| 16 | 33.70 | 69.70 | 34.10 | 70.52 |
| 17 | 32.70 | 69.00 | 33.08 | 69.81 |
| 20 | 33.00 | 69.20 | 33.29 | 69.81 |
| 22 | 29.50 | 68.00 | 29.79 | 68.67 |
| 23 | 28.50 | 69.00 | 28.49 | 68.97 |
| 24 | 30.50 | 68.00 | 30.50 | 68.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 7

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 2150. | .8990 | .7350 | 1185. | 1.025 | 4641. |
| 2 | 2000. | .9380 | .6980 | 1223. | 1.022 | 4537. |
| 3 | 2200. | .8500 | .7420 | 1165. | 1.025 | 4744. |
| 4 | 2000. | .9180 | .6780 | 1156. | 1.020 | 4828. |
| 6 | 2000. | .9220 | .6910 | 1181. | 1.025 | 4646. |
| 7 | 2200. | .8710 | .7500 | 1172. | 1.025 | 4817. |
| 9 | 2200. | .8380 | .7400 | 1156. | 1.025 | 4951. |
| 10 | 2300. | .8740 | .7990 | 1215. | 1.020 | 5023. |
| 11 | 2130. | .8010 | .7110 | -1127. | 1.025 | 4678. |
| 12 | -2490. | .8940 | -.8680 | 1212. | -1.030 | 4941. |
| 13 | 2150. | .9030 | .7350 | 1192. | 1.020 | 5113. |
| 16 | 2250. | .9050 | .7470 | 1151. | 1.025 | 5222. |
| 17 | 2250. | .8960 | .7550 | 1143. | 1.025 | 4976. |
| 20 | 2250. | .8800 | .7490 | 1129. | 1.025 | 4983. |
| 22 | 2100. | .9080 | .7480 | 1188. | 1.025 | 4594. |
| 23 | 2000. | .9320 | .7020 | 1228. | 1.020 | 4732. |
| 24 | 1940. | -.7530 | .6970 | 1190. | 1.020 | 4401. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 7

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 2179. | .8950 | .7310 | 1179. | 4692. |
| 2 | 2027. | .9340 | .6940 | 1217. | 4587. |
| 3 | 2230. | .8460 | .7380 | 1159. | 4797. |
| 4 | 2003. | .9260 | .6840 | 1166. | 4855. |
| 6 | 2006. | .9300 | .6970 | 1191. | 4680. |
| 7 | 2208. | .8790 | .7570 | 1182. | 4855. |
| 9 | 2207. | .8570 | .7570 | 1182. | 5022. |
| 10 | 2289. | .8900 | -.8140 | 1238. | 5045. |
| 11 | 2152. | .8140 | .7220 | 1145. | 4762. |
| 12 | -2479. | .9100 | -.8830 | 1233. | 4962. |
| 13 | 2143. | .9190 | .7480 | 1213. | 5140. |
| 16 | 2252. | .9260 | .7650 | 1178. | 5287. |
| 17 | 2250. | .9170 | .7730 | 1170. | 5034. |
| 20 | 2253. | .8960 | .7620 | 1149. | 5033. |
| 22 | 2097. | .9260 | .7630 | 1212. | 4633. |
| 23 | 2004. | .9310 | .7020 | 1227. | 4738. |
| 24 | 1940. | -.7530 | .6970 | 1190. | 4400. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.799 | 612.7 | 81.7 | 14.1 | 22.9 |
| 2 | 1.872 | 682.1 | 90.7 | 11.1 | 22.8 |
| 3 | 1.690 | 636.1 | 90.3 | 9.7 | 21.4 |
| 4 | 1.835 | 639.5 | 94.7 | 13.6 | 21.5 |
| 6 | 1.822 | 699.5 | 142.4 | 12.5 | 20.1 |
| 7 | 1.742 | 626.4 | 81.4 | 9.9 | 20.8 |
| 9 | 1.665 | 627.4 | 82.7 | 10.5 | 20.6 |
| 10 | 1.748 | 580.8 | 88.1 | 9.7 | 22.2 |
| 11 | 1.592 | 610.0 | 86.7 | 7.0 | 20.8 |
| 12 | 1.827 | -383.0 | 34.8 | 11.0 | -24.2 |
| 13 | 1.812 | 558.1 | 82.2 | 8.7 | 22.3 |
| 16 | 1.791 | 649.5 | 140.3 | 10.9 | 22.8 |
| 17 | 1.803 | 556.9 | 71.1 | 11.1 | -23.8 |
| 20 | 1.744 | 618.0 | 132.6 | 10.4 | 22.9 |
| 22 | 1.814 | 632.4 | 95.8 | 8.6 | 20.9 |
| 23 | 1.834 | 752.5 | 154.2 | -18.6 | 17.9 |
| 24 | -1.518 | -402.9 | 59.4 | 14.3 | 17.5 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3012. | 65.30 | 14.96 | 2.47 | 4.01 | 1.96 |
| 2 | 3003. | 69.65 | 15.91 | 1.86 | 3.82 | 1.69 |
| 3 | 2995. | 71.75 | 17.50 | 1.79 | 3.97 | 1.99 |
| 4 | 3009. | 66.73 | 16.97 | 2.34 | 3.69 | 1.48 |
| 6 | 2976. | 72.71 | 25.44 | 2.13 | 3.42 | 2.20 |
| 7 | 3010. | 68.89 | 15.38 | 1.79 | 3.75 | 2.49 |
| 9 | 2994. | 71.79 | 16.26 | 1.97 | 3.88 | 1.82 |
| 10 | 3013. | 63.71 | 16.60 | 1.74 | 4.01 | 1.05 |
| 11 | 2994. | 73.04 | 17.83 | 1.38 | 4.09 | 1.04 |
| 12 | -3076. | -41.05 | 6.42 | 1.94 | 4.26 | 2.23 |
| 13 | 3022. | 59.22 | 14.99 | 1.52 | 3.89 | .92 |
| 16 | 2982. | 68.81 | 25.54 | 1.90 | 3.96 | 2.25 |
| 17 | 3031. | 59.58 | 13.07 | 1.95 | 4.19 | 1.45 |
| 20 | 2984. | 67.31 | 24.90 | 1.86 | 4.09 | 1.05 |
| 22 | 3006. | 66.70 | 17.22 | 1.49 | 3.62 | 1.84 |
| 23 | 2962. | 77.34 | 27.23 | -3.14 | 3.14 | 2.36 |
| 24 | 3040. | 51.35 | 13.01 | -3.00 | 3.66 | 1.69 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE 7

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .5900 | .4570 | 3.9380 | .5740 | .4390 | 4.2320 |
| 2 | .5940 | .4360 | 3.8470 | .5800 | .4190 | 4.1340 |
| 3 | .5790 | .4780 | 4.0310 | .5640 | .4600 | 4.3320 |
| 4 | .5960 | .4610 | 3.7620 | .6160 | .4730 | 4.3980 |
| 6 | .5730 | .4270 | 3.6140 | .5910 | .4370 | 4.2200 |
| 7 | .5730 | .4630 | 3.7670 | .5900 | .4730 | 4.3980 |
| 9 | .5600 | .4810 | 3.8430 | .6060 | .5140 | 4.5990 |
| 10 | .5850 | .48 0 | 3.8380 | .6230 | .5200 | 4.6270 |
| 11 | .5190 | .4390 | 3.7210 | .5440 | .4530 | 4.2990 |
| 12 | .5840 | .4680 | 3.7770 | .6250 | .4990 | 4.5260 |
| 13 | .6190 | .5120 | 3.9230 | .6630 | .5450 | 4.7440 |
| 16 | .6350 | -.5420 | 4.6070 | -.6940 | -.5840 | -4.9270 |
| 17 | .5880 | .4800 | 3.7550 | .6430 | .5180 | 4.6140 |
| 20 | .5910 | .4900 | 3.9590 | .6300 | .5170 | 4.6120 |
| 22 | .5410 | .4010 | 3.4570 | .5820 | .4280 | 4.1760 |
| 23 | .6030 | .4510 | 3.6390 | .6000 | .4480 | 4.2760 |
| 24 | -.4740 | .3850 | 3.3850 | -.4740 | .3850 | 3.9630 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 600 HOUR TEST SERIES *

MODE 7

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 67.11 | 15.56 | 2.85 | 4.63 | 1.72 |
| 2 | 71.61 | 16.55 | 2.14 | 4.40 | .66 |
| 3 | 73.71 | 18.20 | 2.07 | 4.58 | 1.06 |
| 4 | 64.60 | 16.55 | 2.94 | 4.63 | 1.48 |
| 6 | 70.49 | 24.88 | 2.67 | 4.29 | 1.32 |
| 7 | 66.88 | 15.06 | 2.25 | 4.71 | 2.00 |
| 9 | 66.35 | 15.22 | 2.53 | 4.99 | .66 |
| 10 | 59.26 | 15.51 | 2.26 | 5.19 | 1.05 |
| 11 | 69.68 | 17.28 | 1.71 | 5.07 | .79 |
| 12 | -38.31 | 6.02 | 2.50 | -5.48 | 1.32 |
| 13 | 55.27 | 14.07 | 1.97 | 5.06 | .92 |
| 16 | 62.96 | 23.70 | 2.51 | 5.23 | 1.47 |
| 17 | 54.56 | 12.13 | 2.57 | -5.53 | 1.45 |
| 20 | 63.11 | 23.50 | 2.32 | 5.12 | .53 |
| 22 | 61.96 | 16.16 | 1.93 | 4.70 | 1.84 |
| 23 | 77.69 | 27.40 | -3.69 | 3.69 | 1.33 |
| 24 | 51.32 | 13.00 | -3.51 | 4.29 | 1.20 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 600 HOUR TEST SERIES *

MODE A

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 25.70 | 64.50 | 25.64 | 64.35 |
| 2 | 26.00 | 65.50 | 25.94 | 65.34 |
| 3 | 28.00 | 64.30 | 27.93 | 64.15 |
| 4 | 26.50 | 65.50 | 26.62 | 65.79 |
| 6 | 25.50 | 64.50 | 25.61 | 64.78 |
| 7 | 28.50 | 64.50 | 28.62 | 64.78 |
| 9 | -30.50 | 66.00 | -30.84 | -66.74 |
| 10 | 28.00 | -63.20 | 28.26 | 63.79 |
| 11 | 29.30 | 65.40 | 29.53 | 65.91 |
| 12 | 26.50 | 65.00 | 26.73 | 65.57 |
| 13 | 28.50 | 65.50 | 28.75 | 66.08 |
| 16 | 28.50 | 64.90 | 28.84 | 65.66 |
| 17 | 28.70 | 65.50 | 29.04 | 66.27 |
| 20 | 27.50 | 64.50 | 27.74 | 65.07 |
| 22 | 25.10 | -63.50 | 25.35 | 64.12 |
| 23 | 27.00 | 66.00 | 26.99 | 65.97 |
| 24 | 27.00 | 65.00 | 27.00 | 65.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 600 HOUR TEST SERIES •

MODE 8

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 1800. | .9420 | .8680 | 1201. | 1.015 | 3169. |
| 2 | 1800. | .9580 | .7990 | 1223. | 1.020 | 3473. |
| 3 | 1840. | .8480 | .8810 | 1142. | 1.020 | 3109. |
| 4 | 1700. | .9190 | -.7330 | 1143. | 1.015 | 3635. |
| 6 | 1750. | .9270 | .8360 | 1170. | 1.020 | 3310. |
| 7 | 1900. | .8690 | .9030 | 1160. | 1.020 | 3306. |
| 9 | 2000. | .8380 | .8180 | 1143. | 1.020 | -3911. |
| 10 | 1800. | .8760 | -.9850 | 1190. | 1.020 | 3023. |
| 11 | 1870. | .8040 | .7950 | 1116. | 1.020 | 3630. |
| 12 | 1720. | .8940 | .7940 | 1187. | 1.016 | 3570. |
| 13 | 1800. | .9040 | .7880 | 1176. | 1.015 | 3730. |
| 16 | 1850. | .8960 | .8320 | 1125. | 1.020 | 3571. |
| 17 | 1950. | .9060 | .8310 | 1129. | 1.020 | 3769. |
| 20 | 1900. | .8700 | .8810 | 1109. | 1.015 | 3388. |
| 22 | 1800. | .9310 | -.9460 | 1174. | 1.016 | 3110. |
| 23 | 1900. | .9460 | .8170 | 1230. | 1.020 | 3710. |
| 24 | 1740. | -.7410 | .8070 | 1187. | 1.016 | 3401. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 8

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 1824. | .9370 | .8640 | 1195. | 3204. |
| 2 | 1824. | .9530 | .7950 | 1217. | 3511. |
| 3 | 1865. | .8440 | .8770 | 1136. | 3144. |
| 4 | 1702. | .9280 | .7400 | 1153. | 3655. |
| 6 | 1755. | .9360 | .8430 | 1181. | 3334. |
| 7 | 1907. | .8770 | .9110 | 1170. | 3334. |
| 9 | 2006. | .8570 | .8370 | 1169. | -3967. |
| 10 | 1791. | .8920 | -1.0030 | 1212. | 3036. |
| 11 | 1889. | .8170 | .8070 | 1134. | 3696. |
| 12 | 1712. | .9100 | .9080 | 1207. | 3584. |
| 13 | 1794. | .9200 | .8020 | 1196. | 3750. |
| 16 | 1851. | .9170 | .8520 | 1152. | 3616. |
| 17 | 1950. | .9270 | .8510 | 1156. | 3813. |
| 20 | 1902. | .8850 | .8970 | 1129. | 3422. |
| 22 | 1797. | .9490 | -.9640 | 1197. | 3136. |
| 23 | 1903. | .9450 | .8160 | 1229. | 3715. |
| 24 | 1740. | -.7410 | .8070 | 1187. | 3400. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 8

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOx CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.836 | 821.3 | 185.8 | 13.0 | 20.4 |
| 2 | 1.872 | 838.1 | 173.3 | 10.6 | 20.1 |
| 3 | 1.633 | 817.6 | 202.3 | 8.9 | 18.1 |
| 4 | 1.789 | 825.8 | 191.9 | 12.4 | 18.6 |
| 6 | 1.788 | 887.9 | 232.3 | 11.5 | 17.6 |
| 7 | 1.691 | 802.5 | 172.2 | 9.5 | 17.9 |
| 9 | 1.631 | 727.1 | 162.3 | 9.4 | 19.4 |
| 10 | 1.691 | 792.9 | 218.4 | 8.0 | 17.8 |
| 11 | 1.556 | 748.4 | 179.7 | 6.1 | 17.9 |
| 12 | 1.760 | 722.7 | 144.3 | 8.7 | 18.2 |
| 13 | 1.775 | 702.0 | 168.3 | 7.4 | 18.6 |
| 16 | 1.724 | 850.3 | 235.9 | 8.1 | 19.2 |
| 17 | 1.780 | 705.8 | 165.7 | 9.2 | -21.6 |
| 20 | 1.675 | 805.6 | 222.8 | 9.2 | 19.0 |
| 22 | 1.799 | 858.5 | 223.1 | 7.3 | 18.5 |
| 23 | 1.849 | 819.5 | 176.2 | -16.5 | 16.2 |
| 24 | -1.482 | -468.3 | -78.1 | 13.0 | 15.7 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 8

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2935. | 83.58 | 32.48 | 2.18 | 3.41 | 2.22 |
| 2 | 2942. | 93.83 | 29.79 | 1.74 | 3.31 | 1.04 |
| 3 | 2903. | 92.49 | 39.31 | 1.66 | 3.36 | 2.24 |
| 4 | 2931. | 86.09 | 34.37 | 2.12 | 3.18 | 2.55 |
| 6 | 2903. | 91.78 | 41.26 | 1.95 | 2.99 | 1.95 |
| 7 | 2932. | 88.55 | 32.65 | 1.72 | 3.24 | 1.97 |
| 9 | 2933. | 83.24 | 31.92 | 1.78 | 3.64 | 1.58 |
| 10 | 2909. | 86.81 | 41.09 | 1.44 | 3.20 | 1.97 |
| 11 | 2917. | 89.27 | 36.83 | 1.19 | 3.51 | .52 |
| 12 | 2964. | 77.45 | 26.57 | 1.54 | 3.21 | 1.56 |
| 13 | 2955. | 74.39 | 30.63 | 1.29 | 3.24 | 2.34 |
| 16 | 2898. | 91.00 | 43.37 | 1.42 | 3.38 | .53 |
| 17 | 2960. | 74.70 | 30.14 | 1.60 | 3.75 | 1.06 |
| 20 | 2903. | 88.85 | 42.22 | 1.66 | 3.43 | 2.08 |
| 22 | 2911. | 88.40 | 39.47 | 1.23 | 3.14 | 2.10 |
| 23 | 2943. | 83.05 | 30.68 | -2.75 | 2.75 | 2.61 |
| 24 | -3013. | -60.61 | 17.37 | -2.76 | 3.34 | 1.45 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 600 HOUR TEST SERIES •

MODE 8

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .4370 | .2500 | 2.8800 | .4260 | .2410 | 3.0980 |
| 2 | .4720 | .2790 | -3.0570 | .4600 | .2680 | 3.2870 |
| 3 | .3990 | .2450 | 2.8440 | .3880 | .2350 | 3.0610 |
| 4 | .4480 | .2740 | 2.8900 | .4620 | .2810 | 3.3740 |
| 6 | .4240 | .2470 | 2.7280 | .4370 | .2520 | 3.1800 |
| 7 | .4040 | .2470 | 2.7290 | .4150 | .2520 | 3.1800 |
| 9 | .4290 | .2950 | 3.0030 | .4630 | -.3140 | -3.5810 |
| 10 | .3720 | -.2160 | -2.5120 | .3980 | .2300 | 3.0120 |
| 11 | .4050 | .2770 | 2.9500 | .4240 | .2850 | 3.3990 |
| 12 | .4200 | .2590 | 2.7900 | .4490 | .2750 | 3.3320 |
| 13 | .4380 | .2730 | 2.8490 | .4670 | .2900 | 3.4320 |
| 16 | .4180 | .2590 | 2.7410 | .4540 | .2780 | 3.3500 |
| 17 | .4370 | .2760 | 2.8380 | .4760 | .2960 | 3.4720 |
| 20 | .4010 | .2470 | 2.7870 | .4260 | .2600 | 3.2340 |
| 22 | .3950 | .2210 | 2.5400 | .4240 | .2350 | 3.0570 |
| 23 | .4760 | .2880 | 2.9020 | .4740 | .2870 | 3.4110 |
| 24 | .3770 | .2580 | 2.7520 | .3780 | .2580 | 3.2210 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 600 HOUR TEST SERIES •

MODE 8

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 85.86 | 33.76 | 2.52 | 3.94 | .93 |
| 2 | 86.15 | 30.96 | 2.01 | 3.82 | .66 |
| 3 | 94.92 | 40.86 | 1.92 | 3.89 | .93 |
| 4 | 83.46 | 33.55 | 2.66 | 3.99 | 1.73 |
| 6 | 89.11 | 40.41 | 2.44 | 3.74 | 1.72 |
| 7 | 86.12 | 32.02 | 2.15 | 4.05 | 1.74 |
| 9 | 77.17 | 29.97 | 2.27 | -4.66 | 1.32 |
| 10 | 81.14 | 38.57 | 1.86 | 4.13 | .67 |
| 11 | 85.33 | 35.78 | 1.48 | 4.34 | .52 |
| 12 | 72.53 | 25.00 | 1.97 | 4.11 | 1.33 |
| 13 | 69.66 | 28.87 | 1.47 | 4.20 | 1.59 |
| 16 | 83.76 | 40.48 | 1.87 | 4.43 | .53 |
| 17 | 68.65 | 28.07 | 2.10 | -4.92 | .53 |
| 20 | 83.66 | 40.15 | 2.07 | 4.28 | 1.32 |
| 22 | 82.35 | 37.17 | 1.59 | 4.06 | 1.99 |
| 23 | 83.42 | 30.87 | -3.23 | 3.23 | 2.61 |
| 24 | -60.58 | -17.36 | -3.23 | 3.91 | 1.45 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

| UNIT | TSO HR | TSB HR | AMB TEMP DEG R | AMB PRESS IN HG | AMB HUMID LB H2O/AIR |
|---|---|---|---|---|---|
| 1 | 12905. | 1129. | 508.7 | 30.20 | .006200 |
| 2 | 12273. | 1129. | 514.7 | 30.20 | .006940 |
| 6 | 15529. | 1289. | 510.7 | 30.16 | .006450 |
| 7 | 13683. | 1289. | 510.7 | 30.16 | .006450 |
| 9 | 14852. | 1167. | 502.2 | 29.86 | .005190 |
| 11 | 15245. | 1187. | 511.2 | 29.99 | .005770 |
| 12 | 14824. | 1299. | 519.7 | 30.10 | .008000 |
| 13 | 13321. | 1196. | 513.2 | 30.22 | .007390 |
| 16 | 13756. | 1219. | 518.7 | 30.32 | .004600 |
| 20 | 9486. | 1263. | 514.7 | 30.01 | .006640 |
| 22 | 13261. | 1228. | 513.2 | 29.90 | .005940 |
| 23 | 15623. | 1253. | 525.7 | 30.06 | .008990 |
| 24 | 14066. | 1263. | 524.7 | 30.06 | .009220 |
| 25 | 14779. | 1260. | 523.2 | 30.06 | .010180 |

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 1

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 28.50 | 65.00 | 28.78 | 65.64 |
| 2 | 29.00 | 65.30 | 29.11 | 65.55 |
| 6 | 28.40 | 65.00 | 28.62 | 65.51 |
| 7 | 29.50 | 65.50 | 29.73 | 66.01 |
| 9 | -31.50 | 66.00 | -32.01 | -67.08 |
| 11 | 30.50 | 65.00 | 30.72 | 65.48 |
| 12 | 26.40 | 65.50 | 26.37 | 65.44 |
| 13 | 28.50 | 64.50 | 28.65 | 64.84 |
| 16 | 29.00 | 65.00 | 29.00 | 65.00 |
| 20 | 28.50 | 64.00 | 28.61 | 64.25 |
| 22 | 28.00 | 64.50 | 28.15 | 64.84 |
| 23 | 28.00 | 65.20 | 27.81 | 64.76 |
| 24 | -26.00 | -62.50 | -25.85 | -62.14 |
| 25 | 30.00 | 66.00 | 29.87 | 65.72 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 1

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 2000. | .9550 | .9070 | 1154. | 1.020 | 3573. |
| 2 | 2000. | .9350 | .8790 | 1149. | 1.022 | 3547. |
| 6 | 2000. | .9220 | .9040 | 1143. | 1.022 | 3536. |
| 7 | 2030. | .9400 | .8880 | 1178. | -1.025 | 3699. |
| 9 | -2150. | .9050 | .8940 | 1142. | 1.020 | -4085. |
| 11 | 2000. | .8420 | .8990 | 1120. | 1.020 | 3546. |
| 12 | 1850. | -1.0050 | .8320 | -1242. | 1.015 | 3521. |
| 13 | 1850. | .9000 | .8770 | 1158. | 1.020 | 3320. |
| 16 | 2000. | .9080 | .9020 | 1151. | 1.020 | 3355. |
| 20 | 1900. | .8970 | .9410 | 1136. | 1.015 | 3165. |
| 22 | 1900. | .8750 | .9150 | 1169. | 1.020 | 3356. |
| 23 | 1900. | .9280 | .8720 | -1217. | 1.020 | 3314. |
| 24 | 1750. | .8520 | -1.0150 | 1154. | 1.015 | -2531. |
| 25 | 1800. | .8640 | -.7530 | 1176. | 1.020 | 3616. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 1

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 1999. | .9730 | .9250 | 1177. | 3607. |
| 2 | 2011. | .9420 | .8860 | 1158. | 3580. |
| 6 | 2000. | .9370 | .9180 | 1161. | 3565. |
| 7 | 2030. | .9550 | .9020 | 1196. | 3729. |
| 9 | -2111. | .9350 | .9230 | 1179. | -4076. |
| 11 | 1990. | .8540 | .9130 | 1136. | 3554. |
| 12 | 1863. | 1.0030 | .8310 | -1240. | 3542. |
| 13 | 1859. | .9090 | .8860 | 1170. | 3353. |
| 16 | 2027. | .9080 | .9020 | 1151. | 3400. |
| 20 | 1898. | .9040 | .9480 | 1145. | 3174. |
| 22 | 1889. | .8850 | .9240 | 1181. | 3353. |
| 23 | 1922. | .9160 | .8600 | 1201. | 3329. |
| 24 | 1768. | .8420 | -1.0030 | 1141. | -2542. |
| 25 | 1816. | .8560 | -.7470 | 1164. | 3633. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 1

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.864 | 767.0 | 197.6 | 8.3 | 19.2 |
| 2 | 1.806 | 863.8 | 217.0 | -5.5 | 19.0 |
| 6 | 1.771 | 860.1 | 240.9 | -5.3 | 15.8 |
| 7 | 1.841 | 779.3 | 162.5 | 8.8 | 17.1 |
| 9 | 1.764 | 755.0 | 195.0 | 9.2 | 17.8 |
| 11 | 1.645 | 675.4 | 169.8 | 8.7 | 16.2 |
| 12 | -2.019 | 640.9 | -69.5 | 12.1 | 17.8 |
| 13 | 1.736 | 765.8 | 236.5 | 10.0 | 15.0 |
| 16 | 1.743 | 876.6 | 240.8 | 11.9 | 15.6 |
| 20 | 1.720 | 831.0 | 255.7 | 7.6 | 15.0 |
| 22 | 1.679 | 862.8 | 234.2 | 12.5 | 15.1 |
| 23 | 1.795 | 790.6 | 226.9 | 6.7 | 15.6 |
| 24 | 1.680 | 559.6 | 151.5 | 13.3 | 16.9 |
| 25 | 1.741 | -441.2 | -77.9 | 14.7 | 18.6 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 1

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2939. | 76.98 | 34.07 | 1.37 | 3.18 | 2.10 |
| 2 | 2910. | 88.55 | 38.22 | -.92 | 3.20 | .26 |
| 6 | 2893. | 89.40 | 43.02 | -.90 | 2.71 | 3.12 |
| 7 | 2948. | 79.43 | 28.45 | 1.48 | 2.86 | 1.32 |
| 9 | 2937. | 80.00 | 35.49 | 1.60 | 3.09 | -4.31 |
| 11 | 2944. | 76.92 | 33.22 | 1.62 | 3.03 | 2.36 |
| 12 | -3022. | 61.04 | -11.37 | 1.89 | 2.78 | 2.60 |
| 13 | 2907. | 81.61 | 43.30 | 1.76 | 2.63 | 1.18 |
| 16 | 2891. | 92.54 | 43.47 | 2.06 | 2.71 | 1.30 |
| 20 | 2888. | 88.90 | 46.94 | 1.34 | 2.63 | 2.74 |
| 22 | 2891. | 94.53 | 44.08 | 2.25 | 2.71 | 1.31 |
| 23 | 2913. | 81.66 | 40.26 | 1.14 | 2.64 | -4.52 |
| 24 | 2972. | 63.00 | 29.29 | 2.45 | 3.13 | .26 |
| 25 | -3034. | -48.94 | -14.85 | 2.69 | 3.40 | .65 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 1

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .4430 | .2610 | 2.7780 | .4770 | .2770 | 3.3450 |
| 2 | .4500 | .2710 | 2.8490 | .4610 | .2740 | 3.3280 |
| 6 | .4330 | .2610 | 2.7860 | .4580 | .2730 | 3.3190 |
| 7 | .4530 | .2750 | 2.8690 | .4800 | .2880 | 3.4190 |
| 9 | .4480 | .2910 | 2.9570 | -.5100 | -.3320 | -3.6790 |
| 11 | .4030 | .2580 | 2.8190 | .4260 | .2720 | 3.3130 |
| 12 | -.4890 | .2760 | 2.8680 | .4840 | .2710 | 3.3060 |
| 13 | .4140 | .2480 | 2.6820 | .4290 | .2540 | 3.1920 |
| 16 | .4370 | .2650 | 2.9720 | .4330 | .2580 | 3.2210 |
| 20 | .4000 | .2320 | 2.6450 | .4110 | .2380 | 3.0800 |
| 22 | .4030 | .2430 | 2.7420 | .4200 | .2540 | 3.1920 |
| 23 | .4540 | .2680 | 2.8190 | .4290 | .2520 | 3.1760 |
| 24 | .3770 | .2230 | -2.4740 | -.3600 | -.2120 | -2.8230 |
| 25 | .4490 | .2910 | 2.8660 | .4330 | .2790 | 3.3600 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 1

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 71.60 | 32.10 | 1.77 | 4.09 | 1.33 |
| 2 | 86.40 | 37.70 | -1.16 | 4.02 | .26 |
| 6 | 84.51 | 41.07 | -1.16 | 3.46 | 2.40 |
| 7 | 75.01 | 27.15 | 1.90 | 3.66 | 1.32 |
| 9 | 79.18 | 31.12 | 2.14 | 4.13 | 2.66 |
| 11 | 72.87 | 31.51 | 2.05 | 3.82 | 1.33 |
| 12 | 61.78 | -11.58 | 2.34 | 3.44 | 2.60 |
| 13 | 73.83 | 42.29 | 2.25 | 3.37 | 1.18 |
| 16 | 93.43 | 44.72 | 2.40 | 3.15 | 1.30 |
| 20 | 86.33 | 45.80 | 1.67 | 3.28 | 2.74 |
| 22 | 90.65 | 42.24 | 2.81 | 3.39 | .66 |
| 23 | 86.39 | 42.80 | 1.28 | 2.97 | -4.52 |
| 24 | 65.95 | 30.86 | 2.80 | 3.57 | .26 |
| 25 | -50.76 | -15.50 | 3.15 | 3.98 | .65 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 2

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 34.00 | 69.30 | 34.33 | 69.98 |
| 2 | 34.30 | 69.30 | 34.43 | 69.57 |
| 6 | 32.00 | 68.50 | 32.25 | 69.03 |
| 7 | 34.00 | 69.00 | 34.27 | 69.54 |
| 9 | 33.50 | 68.70 | 34.05 | 69.82 |
| 11 | 36.00 | 69.50 | 36.26 | 70.01 |
| 12 | -30.00 | 69.00 | -29.97 | 68.93 |
| 13 | 33.00 | 69.00 | 33.19 | 69.37 |
| 16 | 33.50 | 69.00 | 33.50 | 69.00 |
| 20 | 35.00 | 69.50 | 35.14 | 69.77 |
| 22 | 34.00 | 69.50 | 34.18 | 69.87 |
| 23 | 31.50 | -68.20 | 31.29 | -67.74 |
| 24 | 33.50 | 69.50 | 33.31 | 69.10 |
| 25 | 33.50 | 69.00 | 33.36 | 68.70 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 2

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 2400. | .9670 | .8110 | 1165. | 1.030 | 5045. |
| 2 | 2400. | .9410 | .8140 | 1174. | 1.030 | 4903. |
| 6 | 2270. | .9070 | .7750 | 1152. | -1.038 | 4724. |
| 7 | 2400. | .9360 | .8240 | 1187. | 1.030 | 4899. |
| 9 | 2250. | .8950 | .7730 | 1152. | 1.025 | 5047. |
| 11 | 2500. | .8650 | .8400 | 1143. | 1.025 | 5091. |
| 12 | 2100. | .9670 | .7350 | -1232. | 1.025 | 4698. |
| 13 | 2200. | .9030 | .7480 | 1170. | 1.030 | 4831. |
| 16 | 2500. | .9110 | .8450 | 1161. | 1.025 | 4987. |
| 20 | 2450. | .9120 | .8280 | 1160. | 1.020 | 5004. |
| 22 | 2400. | .8870 | .8190 | 1172. | 1.030 | 5058. |
| 23 | 2100. | .9210 | .7480 | 1215. | 1.025 | -4290. |
| 24 | 2270. | .8510 | .7750 | 1187. | 1.025 | 4764. |
| 25 | 2050. | .8660 | -.7080 | 1194. | 1.025 | 4624. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 2

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 2399. | .9860 | .8270 | 1188. | 5092. |
| 2 | 2413. | .9480 | .8200 | 1183. | 4949. |
| 6 | 2270. | .9210 | .7870 | 1170. | 4762. |
| 7 | 2401. | .9510 | .8370 | 1205. | 4938. |
| 9 | 2209. | .9250 | .7980 | 1190. | 5037. |
| 11 | 2488. | .8780 | .8520 | 1160. | 5103. |
| 12 | 2115. | .9650 | .7340 | -1229. | 4727. |
| 13 | 2210. | .9120 | .7560 | 1183. | 4879. |
| 16 | 2533. | .9110 | .8450 | 1161. | 4750. |
| 20 | 2448. | .9190 | .8350 | 1169. | 5019. |
| 22 | 2386. | .8960 | .8280 | 1185. | 5055. |
| 23 | 2124. | .9090 | .7380 | 1199. | -4311. |
| 24 | 2293. | .8410 | .7660 | 1173. | 4786. |
| 25 | 2069. | .8590 | -.7010 | 1183. | 4646. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 2

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.934 | 578.2 | 118.8 | 11.7 | 23.6 |
| 2 | 1.884 | 632.2 | 81.3 | 7.2 | 23.5 |
| 6 | 1.760 | 687.2 | 164.9 | -6.0 | 18.7 |
| 7 | 1.878 | 625.7 | 67.3 | 10.1 | 19.9 |
| 9 | 1.758 | 704.2 | 167.6 | 8.6 | 18.8 |
| 11 | 1.748 | 474.8 | 60.5 | 11.1 | 20.6 |
| 12 | 1.957 | 519.0 | 49.5 | 13.3 | 20.1 |
| 13 | 1.786 | 600.6 | 148.0 | 11.4 | 17.9 |
| 16 | 1.793 | 694.5 | 154.8 | 12.6 | 19.3 |
| 20 | 1.817 | 570.5 | 128.2 | 9.7 | 19.4 |
| 22 | 1.772 | 646.5 | 82.8 | 14.7 | 18.9 |
| 23 | 1.806 | 691.2 | -178.1 | 7.4 | 17.6 |
| 24 | 1.730 | -359.5 | 51.7 | 15.3 | 22.6 |
| 25 | 1.761 | -356.1 | 55.6 | 17.6 | 21.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 2

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3008. | 57.26 | 20.21 | 1.91 | 3.83 | 1.83 |
| 2 | 3013. | 64.36 | 14.22 | 1.21 | 3.92 | 1.04 |
| 6 | 2955. | 72.63 | 29.93 | -1.05 | 3.25 | 2.86 |
| 7 | 3018. | 64.01 | 11.82 | 1.69 | 3.35 | 2.47 |
| 9 | 2957. | 75.39 | 30.83 | 1.52 | 3.31 | 1.84 |
| 11 | 3042. | 52.58 | 11.51 | 2.02 | 3.74 | 2.10 |
| 12 | 3045. | 51.39 | 8.42 | 2.17 | 3.27 | .92 |
| 13 | 2979. | 63.76 | 27.00 | 2.00 | 3.11 | 3.13 |
| 16 | 2964. | 73.10 | 27.98 | 2.19 | 3.33 | 3.10 |
| 20 | 2998. | 59.92 | 23.13 | 1.67 | 3.41 | 2.34 |
| 22 | 3009. | 69.85 | 15.37 | 2.61 | 3.36 | .79 |
| 23 | 2951. | 71.88 | 31.83 | 1.26 | 3.01 | -3.37 |
| 24 | 3060. | 40.49 | 10.00 | 2.82 | 4.18 | 1.32 |
| 25 | 3060. | 39.39 | 10.57 | 3.19 | 3.87 | 3.01 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 2

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .6450 | .5000 | 3.8750 | .6970 | .5330 | 4.6860 |
| 2 | .6290 | .4890 | 3.8550 | .6460 | .4960 | 4.5100 |
| 6 | .5640 | .4310 | 3.5990 | .5980 | .4530 | 4.2990 |
| 7 | .6080 | .4700 | 3.7640 | .6450 | .4930 | 4.4970 |
| 9 | .5640 | .4520 | 3.6940 | .6480 | .5180 | 4.6170 |
| 11 | .5970 | .5060 | 3.9850 | .6320 | .5350 | 4.6990 |
| 12 | .6250 | .4540 | 3.7020 | .6170 | .4460 | 4.2650 |
| 13 | .5900 | .4670 | 3.7110 | .6120 | .4790 | 4.4260 |
| 16 | .5960 | .4410 | 3.9550 | .5910 | .4510 | 4.2870 |
| 20 | .6220 | .5000 | 3.9370 | .6410 | .5140 | 4.5960 |
| 22 | .6070 | .5000 | 3.9760 | .6340 | .5230 | 4.6390 |
| 23 | .5610 | -.3940 | -3.4520 | .5290 | -.3700 | -3.8830 |
| 24 | .5880 | .4*.0 | 3.8000 | .5600 | .4580 | 4.3210 |
| 25 | .5710 | .4500 | 3.5760 | .5500 | .4300 | 4.1890 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 2

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 53.00 | 18.96 | 2.48 | 4.98 | 1.83 |
| 2 | 62.70 | 14.01 | -1.52 | 4.93 | 1.04 |
| 6 | 68.52 | 28.50 | -1.34 | 4.16 | 1.87 |
| 7 | 60.29 | 11.25 | 2.17 | 4.30 | .93 |
| 9 | 65.89 | 26.91 | 2.04 | 4.44 | 1.60 |
| 11 | 49.62 | 10.88 | 2.56 | 4.74 | 1.33 |
| 12 | 52.02 | 8.57 | 2.69 | 4.05 | .92 |
| 13 | 61.45 | 26.31 | 2.56 | 3.99 | -2.68 |
| 16 | 73.79 | 28.66 | 2.55 | 3.88 | -3.10 |
| 20 | 58.12 | 22.52 | 2.10 | 4.28 | 1.85 |
| 22 | 66.80 | 14.69 | 3.27 | 4.21 | .66 |
| 23 | 76.16 | -33.89 | -1.42 | -3.39 | -3.37 |
| 24 | 42.52 | 10.57 | 3.21 | 4.75 | 1.32 |
| 25 | 40.90 | 11.04 | 3.74 | 4.54 | .92 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 3

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 88.50 | 93.50 | 89.37 | 94.41 |
| 2 | 89.00 | 93.20 | 89.35 | 93.56 |
| 6 | -87.50 | 93.00 | -88.18 | 93.73 |
| 7 | 88.50 | 93.50 | 89.19 | 94.23 |
| 9 | 89.00 | -92.50 | 90.45 | 94.01 |
| 11 | 89.00 | 93.00 | 89.65 | 93.68 |
| 12 | 89.00 | 95.00 | 88.91 | 94.91 |
| 13 | 89.00 | 94.50 | 89.48 | 95.01 |
| 16 | 89.00 | 94.00 | 89.00 | 94.00 |
| 20 | 88.50 | 93.60 | 88.84 | 93.96 |
| 22 | 88.00 | -92.50 | 88.47 | -92.99 |
| 23 | 91.00 | 94.90 | 90.39 | 94.27 |
| 24 | 90.00 | 94.00 | 89.48 | 93.46 |
| 25 | 91.00 | 93.70 | 90.61 | 93.30 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 3

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 15500. | 1.8190 | 1.8550 | 1845. | 1.400 | 40521. |
| 2 | 15600. | 1.9040 | 1.8800 | 1871. | 1.400 | 40521. |
| 6 | 15700. | 1.8000 | 1.8680 | 1818. | 1.400 | 40575. |
| 7 | 15450. | 1.8810 | 1.8410 | 1826. | 1.400 | 40575. |
| 9 | 15700. | 1.8330 | 1.8880 | 1838. | -1.405 | -41313. |
| 11 | 15400. | 1.8050 | 1.8580 | 1851. | 1.400 | 40805. |
| 12 | 15600. | -1.7340 | 1.8690 | 1836. | 1.400 | 40655. |
| 13 | 15200. | 1.8580 | 1.8310 | 1874. | 1.400 | 40494. |
| 16 | 15800. | 1.8140 | 1.8980 | 1872. | 1.400 | -40360. |
| 20 | 15300. | 1.8070 | 1.8480 | 1856. | 1.400 | 40777. |
| 22 | 15500. | 1.8150 | 1.8650 | 1829. | 1.400 | 40927. |
| 23 | 16100. | 1.8430 | 1.9550 | 1880. | 1.400 | 40710. |
| 24 | 15500. | 1.8190 | 1.8820 | 1881. | 1.400 | 40716. |
| 25 | 15400. | 1.8650 | 1.8730 | 1889. | 1.400 | 40710. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 3

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 15494. | 1.8550 | 1.8910 | 1882. | 40900. |
| 2 | 15485. | 1.9190 | 1.8940 | 1885. | 40900. |
| 6 | 15703. | 1.8280 | 1.8970 | 1847. | 40900. |
| 7 | 15453. | 1.9110 | 1.8700 | 1854. | 40900. |
| 9 | 15417. | 1.8930 | 1.9500 | 1898. | -41230. |
| 11 | 15324. | 1.8320 | 1.8860 | 1878. | 40900. |
| 12 | 15709. | -1.7300 | 1.8650 | -1833. | 40900. |
| 13 | 15271. | 1.8730 | 1.8510 | 1894. | 40900. |
| 16 | 16011. | 1.8140 | 1.8980 | 1872. | 40900. |
| 20 | 15287. | 1.8210 | 1.8620 | 1871. | 40900. |
| 22 | 15407. | 1.8350 | 1.8850 | 1849. | 40900. |
| 23 | 16284. | 1.8180 | 1.9290 | 1854. | 40900. |
| 24 | 15660. | 1.7980 | 1.8610 | 1860. | 40900. |
| 25 | 15539. | 1.8490 | 1.8570 | 1872. | 40900. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 3

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 3.846 | 8.9 | 7.6 | 227.5 | 257.1 |
| 2 | 4.031 | 9.4 | 2.4 | 247.2 | 279.6 |
| 6 | 3.803 | 15.1 | 5.8 | 254.8 | 259.1 |
| 7 | 3.979 | 16.7 | 2.5 | 243.7 | 249.3 |
| 9 | 3.884 | 10.7 | 5.0 | 261.1 | 270.0 |
| 11 | 3.817 | 10.8 | 11.8 | 280.9 | 278.8 |
| 12 | -3.659 | 9.7 | 1.4 | 251.1 | 250.2 |
| 13 | 3.926 | 13.5 | 18.6 | 283.8 | 280.0 |
| 16 | 3.838 | 9.2 | 5.6 | 266.1 | 274.0 |
| 20 | 3.823 | 8.9 | 6.6 | 241.1 | 246.6 |
| 22 | 3.847 | 8.1 | 2.2 | 256.2 | 251.8 |
| 23 | 3.895 | 11.6 | 5.4 | 271.0 | 275.7 |
| 24 | 3.844 | 9.3 | 3.1 | 346.9 | 357.1 |
| 25 | 3.944 | 12.5 | 3.3 | 340.5 | 345.0 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 3

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3151. | .47 | .68 | 19.49 | 22.02 | 21.69 |
| 2 | 3152. | .47 | .20 | 20.21 | 22.86 | 16.93 |
| 6 | 3149. | .80 | .52 | 22.06 | 22.43 | 17.30 |
| 7 | 3149. | .84 | .22 | 20.17 | 20.63 | 21.03 |
| 9 | 3158. | .55 | .44 | 22.19 | 22.95 | 16.00 |
| 11 | 3152. | .57 | 1.07 | 24.25 | 24.25 | 22.02 |
| 12 | 3148. | .53 | .13 | 22.59 | 22.59 | 16.47 |
| 13 | 3148. | .69 | 1.63 | 23.79 | 23.79 | 10.00 |
| 16 | 3154. | .48 | .51 | 22.86 | 23.54 | 13.59 |
| 20 | 3154. | .47 | .59 | 20.80 | 21.27 | 16.67 |
| 22 | 3159. | .43 | .20 | 21.99 | 21.99 | 20.00 |
| 23 | 3149. | .60 | .48 | 22.90 | 23.30 | 18.59 |
| 24 | 3150. | .48 | .28 | 29.71 | -30.59 | -4.64 |
| 25 | 3150. | .64 | .29 | 28.43 | 28.81 | 5.26 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 3

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 70.5100 | 76.0570 | 70.8080 | 88.8240 | 84.2820 | 89.2700 |
| 2 | 83.7710 | 67.0330 | 65.9750 | 92.1370 | 69.0910 | 78.4420 |
| 6 | 60.6600 | 66.2940 | 65.1470 | 72.5220 | 71.8120 | 80.4260 |
| 7 | 83.7790 | 74.4880 | 70.2530 | 101.7920 | 80.7600 | 86.8110 |
| 9 | 62.1560 | 62.8380 | 62.7630 | 92.5730 | 76.7010 | 83.9400 |
| 11 | 61.1270 | 65.3090 | 65.7300 | 72.5970 | 71.0430 | 79.8670 |
| 12 | 69.8520 | 96.5370 | 83.8350 | 68.2330 | 94.3570 | 96.1550 |
| 13 | 93.1400 | 91.8840 | 79.8400 | 106.0770 | 96.4440 | 97.5560 |
| 16 | 73.6490 | 78.4230 | 77.3480 | 73.1360 | 76.5710 | 83.8470 |
| 20 | 67.6350 | 72.7940 | 70.2770 | 74.1470 | 75.9140 | 83.3780 |
| 22 | 56.8720 | 56.5590 | 60.3390 | 64.6220 | -60.3680 | -71.9250 |
| 23 | 91.5120 | 89.2660 | 80.0280 | 77.7250 | 81.4450 | 87.2920 |
| 24 | 72.6530 | 72.9750 | 69.6100 | 63.4640 | 67.4710 | 77.2490 |
| 25 | 79.0960 | 68.9640 | 65.5060 | 71.1710 | 64.8830 | 75.3290 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 3

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | .37 | .62 | 26.55 | 30.01 | 14.45 |
| 2 | .43 | .20 | 25.97 | 29.37 | 12.88 |
| 6 | .67 | .48 | 29.43 | 29.93 | 12.43 |
| 7 | .69 | .20 | 26.93 | 27.55 | 14.50 |
| 9 | .37 | .36 | 32.08 | 33.17 | 14.66 |
| 11 | .48 | .98 | 31.84 | 31.84 | 17.50 |
| 12 | .55 | .13 | 28.00 | 28.00 | 14.28 |
| 13 | .60 | 1.55 | 31.42 | 31.42 | 8.78 |
| 16 | .48 | .52 | 26.78 | 27.58 | 10.59 |
| 20 | .43 | .57 | 26.47 | 27.27 | 14.50 |
| 22 | .37 | .19 | 28.33 | 28.33 | 14.99 |
| 23 | .70 | .52 | 24.98 | 25.42 | 14.58 |
| 24 | .55 | .30 | 32.97 | 33.95 | -4.64 |
| 25 | .71 | .30 | 32.69 | 33.13 | 5.26 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 4

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 84.00 | 91.50 | 84.82 | 92.39 |
| 2 | 84.00 | 92.00 | 84.33 | 92.36 |
| 6 | 82.60 | 92.30 | 83.24 | 93.02 |
| 7 | 84.00 | 91.50 | 84.66 | 92.21 |
| 9 | 83.00 | 91.00 | 84.35 | 92.48 |
| 11 | 84.00 | 91.00 | 84.61 | 91.67 |
| 12 | 83.50 | 93.00 | 83.42 | 92.91 |
| 13 | 83.50 | 92.50 | 83.95 | 92.99 |
| 16 | 84.50 | 92.50 | 84.50 | 92.50 |
| 20 | 83.50 | 93.60 | 83.82 | 93.96 |
| 22 | 83.50 | 91.00 | 83.95 | 91.49 |
| 23 | 84.50 | 92.50 | 83.94 | 91.88 |
| 24 | 84.50 | 92.80 | 84.02 | 92.27 |
| 25 | 85.00 | 91.90 | 84.63 | 91.50 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 4

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 12700. | 1.6560 | 1.6880 | 1741. | 1.310 | 34134. |
| 2 | 12850. | 1.7010 | 1.7210 | 1766. | 1.310 | 34134. |
| 6 | 12750. | 1.6040 | 1.6870 | 1719. | 1.310 | 34179. |
| 7 | 12900. | 1.6960 | 1.7170 | 1739. | 1.310 | 34179. |
| 9 | 12600. | 1.6530 | 1.7030 | 1730. | 1.305 | 34128. |
| 11 | 12800. | 1.6290 | 1.7190 | 1750. | 1.310 | 34373. |
| 12 | 12850. | 1.5720 | 1.7130 | 1737. | 1.310 | 34247. |
| 13 | 12400. | 1.6510 | 1.6830 | 1761. | 1.300 | -33332. |
| 16 | 13300. | 1.6600 | 1.7660 | 1775. | 1.315 | 34387. |
| 20 | 12800. | 1.6440 | 1.7240 | 1763. | 1.310 | 34350. |
| 22 | 12800. | 1.6120 | 1.7100 | 1723. | 1.310 | 34476. |
| 23 | 13000. | 1.6920 | 1.7420 | 1750. | 1.310 | 34293. |
| 24 | 12800. | 1.6690 | 1.7230 | 1766. | 1.310 | 34299. |
| 25 | 12500. | 1.6350 | 1.6850 | 1773. | 1.310 | 34293. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 4

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 12695. | 1.6880 | 1.7220 | 1775. | 34453. |
| 2 | 12920. | 1.7140 | 1.7350 | 1780. | 34453. |
| 6 | 12753. | 1.6300 | 1.7130 | 1746. | 34453. |
| 7 | 12903. | 1.7230 | 1.7440 | 1766. | 34453. |
| 9 | 12373. | 1.7070 | 1.7580 | 1787. | 34060. |
| 11 | 12737. | 1.6530 | 1.7440 | 1776. | 34453. |
| 12 | 12940. | 1.5690 | 1.7090 | 1734. | 34453. |
| 13 | 12458. | 1.6690 | 1.7010 | 1780. | 33667. |
| 16 | 13478. | 1.6600 | 1.7660 | 1775. | 36867. |
| 20 | 12789. | 1.6570 | 1.7370 | 1776. | 34453. |
| 22 | 12723. | 1.6290 | 1.7290 | 1741. | 34453. |
| 23 | 13149. | 1.6700 | 1.7190 | -1727. | 34453. |
| 24 | 12932. | 1.6500 | 1.7030 | 1746. | 34453. |
| 25 | 12613. | 1.6210 | 1.6710 | 1758. | 34453. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 4

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 3.495 | 10.3 | 3.2 | 164.4 | 179.9 |
| 2 | 3.593 | 9.9 | 1.3 | 173.4 | 193.5 |
| 6 | 3.383 | 16.1 | 4.0 | 168.8 | 171.0 |
| 7 | 3.580 | 17.5 | 2.5 | 163.5 | 167.9 |
| 9 | 3.496 | 11.6 | 3.6 | 170.4 | 173.3 |
| 11 | 3.437 | 11.3 | 12.9 | -75.5 | -75.1 |
| 12 | 3.313 | 10.0 | 1.2 | 174.5 | 174.8 |
| 13 | 3.478 | 18.5 | -22.2 | 189.6 | 188.9 |
| 16 | 3.507 | 9.9 | 4.1 | 191.2 | 189.6 |
| 20 | 3.471 | 10.0 | 7.1 | 173.0 | 172.5 |
| 22 | 3.408 | 8.0 | 1.5 | 177.0 | 173.1 |
| 23 | 3.572 | 10.8 | 3.1 | 190.8 | 200.3 |
| 24 | 3.523 | 9.0 | 1.6 | 239.4 | -250.0 |
| 25 | 3.449 | 12.1 | 2.7 | 236.6 | 239.7 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 4

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3152. | .59 | .32 | 15.49 | 16.95 | 15.10 |
| 2 | 3152. | .55 | .13 | 15.90 | 17.75 | 13.77 |
| 6 | 3149. | .65 | .41 | 16.43 | 16.64 | 11.84 |
| 7 | 3149. | .98 | .24 | 15.04 | 15.44 | 17.49 |
| 9 | 3158. | .67 | .36 | 16.10 | 16.37 | 11.37 |
| 11 | 3151. | .66 | 1.30 | -7.23 | -7.23 | 18.28 |
| 12 | 3148. | .60 | .13 | 17.34 | 17.36 | 13.39 |
| 13 | -3146. | 1.07 | -2.19 | 17.92 | 17.92 | 7.22 |
| 16 | 3154. | .57 | .40 | 17.97 | 17.97 | 10.75 |
| 20 | 3153. | .58 | .70 | 16.43 | 16.43 | 12.03 |
| 22 | 3159. | .47 | .15 | 17.15 | 17.15 | 14.71 |
| 23 | 3150. | .61 | .30 | 17.59 | 18.47 | 13.73 |
| 24 | 3150. | .51 | .16 | 22.37 | 23.37 | 4.56 |
| 25 | 3149. | .70 | .27 | 22.59 | 22.88 | -2.76 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 4

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 32.4940 | 47.3170 | 52.2610 | 39.3510 | 52.2020 | 65.5780 |
| 2 | 38.5910 | 50.2280 | 54.8920 | 41.6450 | 51.7160 | 65.1910 |
| 6 | 32.9050 | 56.1440 | 58.5690 | 38.1600 | 60.7420 | 72.2100 |
| 7 | 35.4940 | 46.2440 | 51.8130 | 41.5470 | 49.9600 | 63.7840 |
| 9 | 30.1000 | 43.9380 | 49.9980 | 41.8800 | 53.3360 | 66.4750 |
| 11 | 28.0970 | 41.4390 | 49.1980 | 32.3880 | 44.9360 | 59.5790 |
| 12 | 33.2550 | 60.5030 | 61.8780 | 32.5730 | 59.1630 | 71.0050 |
| 13 | 37.6360 | 57.6530 | 59.0160 | 41.7150 | 60.3680 | 71.9250 |
| 16 | 37.7580 | 54.8550 | 61.4850 | 37.4700 | 53.5590 | 66.6520 |
| 20 | 44.2940 | 72.7940 | 70.2770 | 47.9500 | -75.9140 | -83.3780 |
| 22 | 26.9040 | 40.7260 | 48.9650 | 29.8680 | 43.3970 | 58.2450 |
| 23 | 39.9040 | 51.1850 | 55.9040 | 34.7570 | 46.8670 | 61.2100 |
| 24 | 39.4810 | 54.6410 | 57.8430 | 35.1130 | 50.5990 | 64.2990 |
| 25 | 32.0300 | 46.20[illegible]0 | 50.6890 | 29.4140 | 43.5460 | 58.3930 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 4

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | .49 | .29 | 19.44 | 21.27 | 12.27 |
| 2 | .51 | .12 | 20.41 | 22.78 | 11.10 |
| 6 | .82 | .38 | 20.26 | 20.51 | 9.95 |
| 7 | .83 | .22 | 18.51 | 19.00 | 14.66 |
| 9 | .48 | .29 | 21.41 | 21.76 | 10.74 |
| 11 | .57 | 1.20 | -9.41 | -9.41 | -16.54 |
| 12 | .62 | .13 | 21.50 | 21.53 | 13.36 |
| 13 | .96 | -2.09 | 21.84 | 21.84 | 6.87 |
| 16 | .57 | .41 | 19.48 | 19.48 | 9.27 |
| 20 | .53 | .67 | 19.49 | 19.49 | 11.77 |
| 22 | .42 | .14 | 22.06 | 22.06 | 12.79 |
| 23 | .70 | .33 | 19.26 | 20.22 | 12.21 |
| 24 | .58 | .17 | 24.87 | 25.97 | 4.56 |
| 25 | .77 | .28 | 26.02 | 26.36 | -2.76 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 5

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 73.50 | -87.20 | 74.22 | -88.05 |
| 2 | 74.00 | 88.60 | 74.29 | 88.94 |
| 6 | 73.60 | 89.50 | 74.17 | 90.20 |
| 7 | 74.50 | 88.20 | 75.08 | 88.89 |
| 9 | 75.00 | 88.80 | 76.22 | 90.25 |
| 11 | 75.00 | -87.50 | 75.55 | -88.14 |
| 12 | 76.50 | 90.50 | 76.43 | 90.41 |
| 13 | 74.00 | 89.00 | 74.40 | 89.48 |
| 16 | 77.00 | 90.50 | 77.00 | 90.50 |
| 20 | 74.50 | 88.50 | 74.79 | 88.84 |
| 22 | 75.50 | 90.00 | 75.90 | 90.48 |
| 23 | -77.50 | 89.70 | 76.98 | 89.10 |
| 24 | 77.00 | 90.00 | 76.56 | 89.48 |
| 25 | 76.50 | 89.20 | 74.17 | 88.82 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 5

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 8900. | 1.4060 | 1.4430 | 1565. | 1.190 | 24491. |
| 2 | 9000. | 1.4240 | 1.4730 | 1593. | 1.190 | 24491. |
| 6 | 9300. | 1.3720 | 1.4700 | 1572. | 1.200 | 25595. |
| 7 | 9450. | 1.4530 | 1.5040 | 1592. | 1.200 | 25595. |
| 9 | 9500. | 1.4490 | 1.5150 | 1602. | 1.205 | 26246. |
| 11 | 9300. | 1.3840 | 1.5320 | 1590. | 1.190 | 24662. |
| 12 | 10000. | 1.4120 | 1.5600 | 1626. | 1.215 | 26819. |
| 13 | 8900. | 1.4030 | 1.4550 | 1592. | 1.190 | 24475. |
| 16 | -10500. | 1.4720 | -1.6240 | 1655. | 1.220 | 27012. |
| 20 | 9300. | 1.4020 | 1.4940 | 1606. | 1.200 | 25723. |
| 22 | 10000. | 1.4180 | 1.5390 | 1597. | 1.220 | 27392. |
| 23 | 9900. | 1.4970 | 1.5300 | 1628. | 1.220 | 27246. |
| 24 | 9850. | 1.4480 | 1.5270 | 1637. | 1.220 | 27250. |
| 25 | 9400. | 1.4290 | 1.4840 | 1628. | 1.210 | 26463. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 5

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 8896. | 1.4330 | 1.4710 | 1595. | 24720. |
| 2 | 9049. | 1.4350 | 1.4840 | 1606. | 24720. |
| 6 | 9302. | 1.3940 | 1.4930 | 1596. | 25800. |
| 7 | 9452. | 1.4750 | 1.5270 | 1614. | 25800. |
| 9 | 9329. | 1.4970 | 1.5650 | 1655. | 26193. |
| 11 | 9254. | 1.4040 | 1.5540 | 1613. | 24720. |
| 12 | 10070. | 1.4100 | 1.5570 | 1623. | 26980. |
| 13 | 8941. | 1.4180 | 1.4700 | 1609. | 24720. |
| 16 | -10640. | 1.4720 | -1.6240 | 1655. | 27373. |
| 20 | 9292. | 1.4130 | 1.5050 | 1618. | 25800. |
| 22 | 9940. | 1.4330 | 1.5560 | 1614. | 27373. |
| 23 | 10013. | 1.4770 | 1.5100 | 1606. | 27373. |
| 24 | 9952. | 1.4310 | 1.5090 | 1618. | 27373. |
| 25 | 9495. | 1.4160 | 1.4710 | 1614. | 26587. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 2.959 | 21.5 | 1.5 | 87.1 | 97.5 |
| 2 | 2.998 | 20.8 | .8 | 88.7 | 100.7 |
| 6 | 2.886 | 24.8 | 3.4 | 95.3 | 99.6 |
| 7 | 3.057 | 24.0 | 2.6 | 92.2 | 98.2 |
| 9 | 3.058 | 18.8 | 2.8 | 101.4 | 104.7 |
| 11 | 2.912 | 16.0 | 10.8 | -40.6 | -41.2 |
| 12 | 2.971 | 12.3 | 1.0 | 107.8 | 111.6 |
| 13 | 2.947 | 21.5 | -19.4 | 100.0 | 100.8 |
| 16 | 3.103 | 15.0 | 2.8 | 120.7 | 120.1 |
| 20 | 2.952 | 17.5 | 5.8 | 97.4 | 98.6 |
| 22 | 2.993 | 11.8 | 1.0 | 110.6 | 109.2 |
| 23 | 3.152 | 13.6 | 2.0 | 117.3 | 126.7 |
| 24 | 3.048 | 11.4 | 1.4 | -141.9 | -153.5 |
| 25 | 3.006 | 16.2 | 2.5 | -136.4 | -140.8 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3151. | 1.46 | .17 | 9.69 | 10.85 | 7.60 |
| 2 | 3151. | 1.39 | .10 | 9.74 | 11.06 | 9.64 |
| 6 | 3148. | 1.72 | .40 | 10.86 | 11.36 | 7.55 |
| 7 | 3148. | 1.57 | .29 | 9.92 | 10.57 | -15.67 |
| 9 | 3158. | 1.23 | .32 | 10.95 | 11.30 | 5.56 |
| 11 | 3151. | 1.10 | 1.27 | -4.59 | -4.66 | 11.63 |
| 12 | 3147. | .83 | .12 | 11.94 | 12.36 | 8.55 |
| 13 | -3145. | 1.46 | -2.26 | 11.15 | 11.25 | 4.94 |
| 16 | 3154. | .97 | .31 | 12.82 | 12.82 | 8.03 |
| 20 | 3152. | 1.19 | .68 | 10.87 | 11.01 | 8.38 |
| 22 | 3159. | .79 | .12 | 12.20 | 12.20 | 9.03 |
| 23 | 3149. | .86 | .21 | 12.26 | 13.23 | 10.00 |
| 24 | 3150. | .75 | .16 | -15.31 | -16.58 | 3.52 |
| 25 | 3149. | 1.08 | .29 | -14.94 | -15.42 | 2.22 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 5

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 10.7100 | -19.9400 | -30.4830 | 12.3790 | -21.8290 | -37.9360 |
| 2 | 13.2430 | 25.4440 | 35.7700 | 14.0050 | 26.1340 | 42.3710 |
| 6 | 13.6810 | 31.1840 | 40.3730 | 15.3760 | 33.5940 | 49.5480 |
| 7 | 13.3040 | 24.0360 | 34.3560 | 15.0240 | 25.8460 | 42.0820 |
| 9 | 14.4030 | 28.1390 | 37.7690 | -18.8800 | 33.9260 | 49.8550 |
| 11 | 10.6370 | -20.5860 | -31.8230 | 11.8790 | 22.2190 | -38.3480 |
| 12 | 16.6060 | 35.8580 | 44.3460 | 16.3020 | 35.0800 | 50.9130 |
| 13 | 13.4750 | 27.8300 | 37.2620 | 14.5690 | 29.0350 | 45.2370 |
| 16 | -18.7660 | -36.5630 | -47.4860 | -18.6120 | 35.6990 | 51.4760 |
| 20 | 12.4950 | 24.6590 | 35.4210 | 13.2620 | 25.6150 | 41.8490 |
| 22 | 15.7580 | 33.4090 | 43.2020 | 17.2150 | 35.5630 | 51.3530 |
| 23 | 17.3720 | 29.3460 | 39.3100 | 15.4980 | 26.9640 | 43.2000 |
| 24 | 16.4550 | 31.3110 | 40.6070 | 14.9580 | 29.0820 | 45.2830 |
| 25 | 14.2750 | 26.9730 | 36.1220 | 13.3030 | 25.4740 | 41.7060 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 5

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOx EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 1.26 | .16 | 12.06 | 13.50 | 7.60 |
| 2 | 1.31 | .09 | -11.54 | 13.10 | 9.21 |
| 6 | 1.53 | .37 | 13.33 | 13.94 | 7.55 |
| 7 | 1.39 | .27 | 12.15 | 12.94 | -12.05 |
| 9 | .94 | .26 | 14.45 | 14.92 | 5.56 |
| 11 | .98 | 1.18 | -5.94 | -6.02 | 11.03 |
| 12 | .84 | .12 | 13.71 | 14.19 | 8.46 |
| 13 | 1.35 | -2.16 | 13.54 | 13.66 | 4.94 |
| 16 | .98 | .32 | 13.90 | 13.90 | 7.86 |
| 20 | 1.12 | .66 | 12.85 | 13.01 | 8.07 |
| 22 | .72 | .11 | 15.68 | 15.68 | 7.70 |
| 23 | .97 | .23 | 13.47 | 14.54 | 8.89 |
| 24 | .83 | .17 | -17.07 | -18.49 | 2.93 |
| 25 | 1.16 | .30 | -17.25 | -17.81 | 1.85 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 6

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 56.00 | 82.00 | 56.55 | 82.80 |
| 2 | 56.00 | 83.20 | 56.22 | 83.52 |
| 6 | 57.00 | 84.50 | 57.44 | 85.16 |
| 7 | 56.50 | 83.50 | 56.94 | 84.15 |
| 9 | 57.00 | 83.30 | 57.93 | 84.66 |
| 11 | 58.00 | 82.00 | 58.42 | 82.60 |
| 12 | 58.00 | 85.50 | 57.94 | 85.42 |
| 13 | 56.50 | 84.00 | 56.80 | 84.45 |
| 16 | 57.00 | 84.00 | 57.00 | 84.00 |
| 20 | 56.50 | 83.30 | 56.72 | 83.62 |
| 22 | -53.00 | 82.00 | -53.28 | 83.44 |
| 23 | 55.50 | 83.40 | 55.13 | 82.84 |
| 24 | 56.00 | 83.40 | 55.68 | 82.92 |
| 25 | 56.00 | 83.00 | 55.76 | 82.64 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 6

| UNIT | FUEL FLOW LAM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 5050. | 1.1630 | 1.1470 | 1361. | 1.080 | -1294. |
| 2 | 5200. | 1.1730 | 1.2440 | 1388. | 1.080 | 12127. |
| 6 | 5400. | 1.1400 | 1.2060 | 1381. | -1.090 | -13512. |
| 7 | 5400. | 1.1930 | 1.2980 | 1395. | 1.080 | 12143. |
| 9 | 5400. | 1.1530 | 1.2310 | 1392. | -1.089 | -13509. |
| 11 | 5300. | 1.1250 | 1.2660 | 1365. | 1.080 | 12211. |
| 12 | 5700. | 1.1770 | 1.2980 | 1433. | -1.090 | -13539. |
| 13 | 5200. | 1.1700 | 1.2470 | 1395. | 1.080 | 12118. |
| 16 | 5500. | 1.1630 | 1.2740 | 1406. | 1.085 | 12759. |
| 20 | 5300. | 1.1790 | 1.2390 | 1401. | 1.085 | 12891. |
| 22 | 4900. | 1.0900 | 1.1660 | 1349. | 1.080 | 12248. |
| 23 | 4900. | 1.1470 | 1.2150 | 1377. | -1.075 | -11496. |
| 24 | 5100. | 1.0980 | 1.1960 | 1376. | 1.080 | 12185. |
| 25 | 4200. | 1.1120 | 1.1580 | 1401. | 1.080 | 12183. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 6

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 5048. | 1.1860 | 1.1700 | 1388. | 13068. |
| 2 | 5228. | 1.1820 | 1.2540 | 1399. | 12240. |
| 6 | 5401. | 1.1580 | 1.2240 | 1403. | -13620. |
| 7 | 5401. | 1.2120 | 1.3180 | 1417. | 12240. |
| 9 | 5303. | 1.1970 | 1.2710 | 1437. | -13482. |
| 11 | 5274. | 1.1410 | 1.2850 | 1385. | 12240. |
| 12 | -5740. | 1.1750 | 1.2960 | 1427. | -13620. |
| 13 | 5224. | 1.1830 | 1.2600 | 1410. | 12240. |
| 16 | 5574. | 1.1630 | 1.2740 | 1404. | 12930. |
| 20 | 5295. | 1.1880 | 1.2480 | 1412. | 12930. |
| 22 | 4871. | 1.1010 | 1.1790 | 1363. | 12240. |
| 23 | 4956. | 1.1310 | 1.1990 | 1359. | -11550. |
| 24 | 5052. | 1.0860 | 1.1820 | 1360. | 12240. |
| 25 | 4843. | 1.1020 | 1.1480 | 1389. | 12240. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 6

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 2.433 | 99.2 | 3.9 | 38.8 | 48.8 |
| 2 | 2.453 | 109.3 | 3.7 | 36.8 | 49.2 |
| 6 | 2.392 | 101.1 | 5.9 | 41.0 | 51.5 |
| 7 | 2.496 | 94.1 | 4.2 | 38.0 | 49.2 |
| 9 | 2.429 | 97.7 | 5.6 | 41.4 | 50.0 |
| 11 | 2.355 | 70.5 | 8.6 | 41.4 | 49.1 |
| 12 | 2.467 | -43.2 | 1.6 | 49.2 | 55.9 |
| 13 | 2.445 | 92.1 | -16.6 | 42.2 | 50.2 |
| 16 | 2.433 | 104.8 | 5.5 | 42.7 | 52.1 |
| 20 | 2.468 | 99.5 | 7.2 | 40.9 | 50.4 |
| 22 | 2.281 | 110.9 | 4.1 | 36.6 | 44.4 |
| 23 | 2.397 | 96.5 | 5.4 | 37.4 | 48.0 |
| 24 | 2.298 | 56.4 | 3.5 | 49.1 | 57.8 |
| 25 | 2.327 | 57.3 | 4.5 | -52.3 | 56.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 6

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3139. | 8.15 | .54 | 5.23 | 6.58 | 3.67 |
| 2 | 3138. | 8.90 | .51 | 4.92 | 6.57 | 3.25 |
| 6 | 3136. | 8.47 | .96 | 5.64 | 7.08 | 3.99 |
| 7 | 3138. | 7.53 | .58 | 4.99 | 6.47 | 5.88 |
| 9 | 3146. | 8.06 | .79 | 5.61 | 6.77 | 1.85 |
| 11 | 3143. | 5.99 | 1.26 | 5.78 | 6.86 | 5.92 |
| 12 | 3143. | -3.50 | .22 | 6.56 | 7.45 | -7.30 |
| 13 | 3135. | 7.51 | -2.33 | 5.65 | 6.73 | 2.48 |
| 16 | 3140. | 8.61 | .77 | 5.77 | 7.03 | 4.71 |
| 20 | 3142. | 7.25 | 1.00 | 5.44 | 6.71 | 4.04 |
| 22 | 3143. | 9.73 | .62 | 5.28 | 6.39 | 2.99 |
| 23 | 3136. | 8.04 | .81 | 5.15 | 6.56 | 1.97 |
| 24 | 3142. | 4.91 | .53 | 7.02 | 8.26 | 2.22 |
| 25 | 3142. | 4.93 | .66 | -7.38 | [illegible].94 | .39 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 6

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | 3.7760 | 7.0810 | 16.3100 | 4.2170 | 7.6940 | 20.1090 |
| 2 | 4.4050 | 8.6820 | 18.5660 | 4.5900 | 8.8840 | 21.9060 |
| 6 | 4.9690 | 11.4820 | 21.8590 | 5.4380 | 12.2830 | 26.6290 |
| 7 | 4.7230 | 9.4120 | 19.3900 | 5.1780 | 10.0560 | 23.5880 |
| 9 | 4.4140 | 9.3570 | 19.7330 | 5.3970 | 11.1040 | 25.0410 |
| 11 | 3.5560 | 6.8770 | 16.4090 | 3.8670 | 7.3720 | 19.6270 |
| 12 | -5.8480 | -13.2060 | -23.9150 | 5.7570 | 12.9310 | 27.4810 |
| 13 | 4.8540 | 10.2600 | 20.2180 | 5.1500 | 10.6540 | 24.4220 |
| 16 | 4.7810 | 9.9990 | 21.3760 | 4.7390 | 9.7620 | 23.1730 |
| 20 | 4.4760 | 8.7560 | 18.8330 | 4.6870 | 9.0630 | 22.1680 |
| 22 | 3.3790 | 6.7430 | 16.3250 | 3.5940 | 7.1310 | 19.2510 |
| 23 | 4.2710 | 8.3710 | 18.2440 | 3.9340 | 7.7480 | 20.2070 |
| 24 | 4.0060 | 8.4210 | 18.1640 | 3.7390 | 7.8740 | 20.3990 |
| 25 | 3.8900 | 7.8380 | 17.0020 | 3.6910 | 7.4370 | 19.7290 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 6

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 7.30 | .50 | 6.93 | 8.71 | 3.67 |
| 2 | 8.54 | .50 | 6.24 | 8.33 | 3.20 |
| 6 | 7.74 | .80 | 7.37 | 9.26 | 3.99 |
| 7 | 6.87 | .55 | 6.53 | 8.45 | 5.46 |
| 9 | 6.59 | .67 | 7.82 | 9.44 | 1.85 |
| 11 | 5.51 | 1.18 | 7.42 | 8.81 | -5.92 |
| 12 | 3.56 | .22 | 8.10 | 9.19 | -7.07 |
| 13 | 7.08 | -2.24 | 7.33 | 8.72 | 2.02 |
| 16 | 8.68 | .79 | 6.72 | 8.19 | 4.35 |
| 20 | 6.92 | .97 | 6.87 | 8.49 | 4.04 |
| 22 | 9.14 | .59 | 5.69 | 8.10 | 2.99 |
| 23 | 8.73 | .87 | -5.70 | 7.27 | 1.73 |
| 24 | 5.25 | .56 | 7.88 | 9.28 | 2.22 |
| 25 | 5.19 | .70 | 8.56 | 9.22 | .39 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 7

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 32.20 | 69.00 | 32.51 | 69.67 |
| 2 | 32.00 | 69.50 | 32.12 | 69.77 |
| 6 | 30.50 | 69.40 | 30.74 | 69.94 |
| 7 | 32.00 | 68.60 | 32.25 | 69.14 |
| 9 | 32.50 | 69.10 | 33.03 | 70.23 |
| 11 | -35.00 | 69.50 | -35.26 | 70.01 |
| 12 | 28.50 | 69.50 | 28.47 | 69.43 |
| 13 | 32.50 | 69.50 | 32.67 | 69.87 |
| 16 | 32.00 | 69.00 | 32.00 | 69.00 |
| 20 | 32.50 | 68.50 | 32.63 | 68.77 |
| 22 | 30.50 | 69.00 | 30.66 | 69.37 |
| 23 | 30.00 | 68.40 | 29.80 | 67.94 |
| 24 | 32.00 | 69.80 | 31.82 | 69.40 |
| 25 | 33.00 | 69.30 | 32.86 | 69.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 7

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 2250. | .9410 | .7680 | 1178. | 1.025 | 4940. |
| 2 | 2150. | .9170 | .7300 | 1185. | 1.025 | 4973. |
| 6 | 2100. | .9090 | .7100 | 1169. | 1.025 | 5039. |
| 7 | 2200. | .9230 | .7630 | 1196. | -1.035 | 4759. |
| 9 | 2150. | .8740 | .7350 | 1158. | 1.025 | 5192. |
| 11 | 2350. | .8460 | .7880 | 1140. | 1.025 | 5091. |
| 12 | 2100. | -.9730 | .7410 | -1273. | 1.020 | 4872. |
| 13 | 2150. | .9150 | .7310 | 1192. | 1.025 | 5005. |
| 16 | 2350. | .8830 | .7990 | 1178. | 1.023 | 4687. |
| 20 | 2200. | .8970 | .7560 | 1156. | 1.020 | 4654. |
| 22 | 2200. | .8610 | .7600 | 1181. | -1.030 | 4882. |
| 23 | 2000. | .9060 | .7070 | 1224. | 1.020 | 4360. |
| 24 | 2100. | .8260 | .7140 | 1192. | 1.025 | 4868. |
| 25 | 2000. | .8470 | .6900 | 1206. | 1.025 | 4728. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 7

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 2249. | .9600 | .7830 | 1201. | 4986. |
| 2 | 2162. | .9240 | .7350 | 1194. | 5019. |
| 6 | 2100. | .9230 | .7210 | 1187. | 5080. |
| 7 | 2200. | .9370 | .7750 | 1214. | 4797. |
| 9 | 2111. | .9020 | .7590 | 1196. | 5181. |
| 11 | 2338. | .8590 | .8000 | 1156. | 5103. |
| 12 | 2115. | .9710 | .7400 | -1270. | 4902. |
| 13 | 2160. | .9240 | .7390 | 1205. | 5055. |
| 16 | -2381. | .8830 | .7990 | 1178. | 4750. |
| 20 | 2198. | .9040 | .7610 | 1165. | 4668. |
| 22 | 2187. | .8700 | .7680 | 1194. | 4879. |
| 23 | 2023. | .8940 | .6970 | 1208. | 4380. |
| 24 | 2122. | .8170 | .7060 | 1178. | 4890. |
| 25 | 2018. | .8400 | .6840 | 1196. | 4750. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.887 | 616.9 | 78.2 | 10.6 | 22.2 |
| 2 | 1.828 | 662.6 | 89.6 | 7.0 | 21.0 |
| 6 | 1.790 | 674.7 | 150.2 | 7.1 | 18.0 |
| 7 | 1.840 | 682.6 | 79.1 | 8.7 | 18.3 |
| 9 | 1.717 | 690.9 | 154.0 | 8.6 | 18.4 |
| 11 | 1.706 | 475.9 | 66.2 | 9.0 | 19.7 |
| 12 | -1.981 | 442.8 | 43.1 | 13.5 | 20.8 |
| 13 | 1.826 | 574.3 | 109.1 | 10.7 | 19.0 |
| 16 | 1.739 | 677.5 | 142.6 | 11.4 | 19.1 |
| 20 | 1.786 | 629.0 | 101.9 | 9.0 | 18.1 |
| 22 | 1.711 | 683.7 | 88.7 | 13.3 | 17.7 |
| 23 | 1.778 | 700.1 | 161.7 | 8.7 | 17.5 |
| 24 | 1.677 | -359.5 | 50.5 | 14.4 | 22.0 |
| 25 | 1.729 | -300.8 | 47.5 | -16.8 | 20.9 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 3017. | 62.77 | 13.67 | 1.78 | 3.72 | -3.77 |
| 2 | 3001. | 69.24 | 16.08 | 1.20 | 3.60 | .26 |
| 6 | 2965. | 71.14 | 27.21 | 1.23 | 3.12 | 1.85 |
| 7 | 3001. | 70.85 | 14.11 | 1.49 | 3.12 | 1.18 |
| 9 | 2962. | 75.83 | 29.04 | 1.55 | 3.32 | -3.95 |
| 11 | 3036. | 53.88 | 12.89 | 1.68 | 3.66 | 1.31 |
| 12 | 3061. | -43.54 | 7.29 | 2.19 | 3.35 | 1.17 |
| 13 | 3005. | 60.16 | 19.63 | 1.83 | 3.27 | 1.43 |
| 16 | 2967. | 73.56 | 26.61 | 2.03 | 3.42 | 2.09 |
| 20 | 2999. | 67.22 | 18.70 | 1.58 | 3.18 | 2.47 |
| 22 | 2994. | 76.16 | 16.98 | 2.43 | 3.23 | 1.30 |
| 23 | 2954. | 74.02 | 29.38 | 1.51 | 3.04 | 0.00 |
| 24 | 3058. | -41.72 | 10.07 | 2.75 | 4.19 | 1.31 |
| 25 | -3073. | -34.03 | 9.23 | -3.12 | 3.89 | .13 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1200 HOUR TEST SERIES *

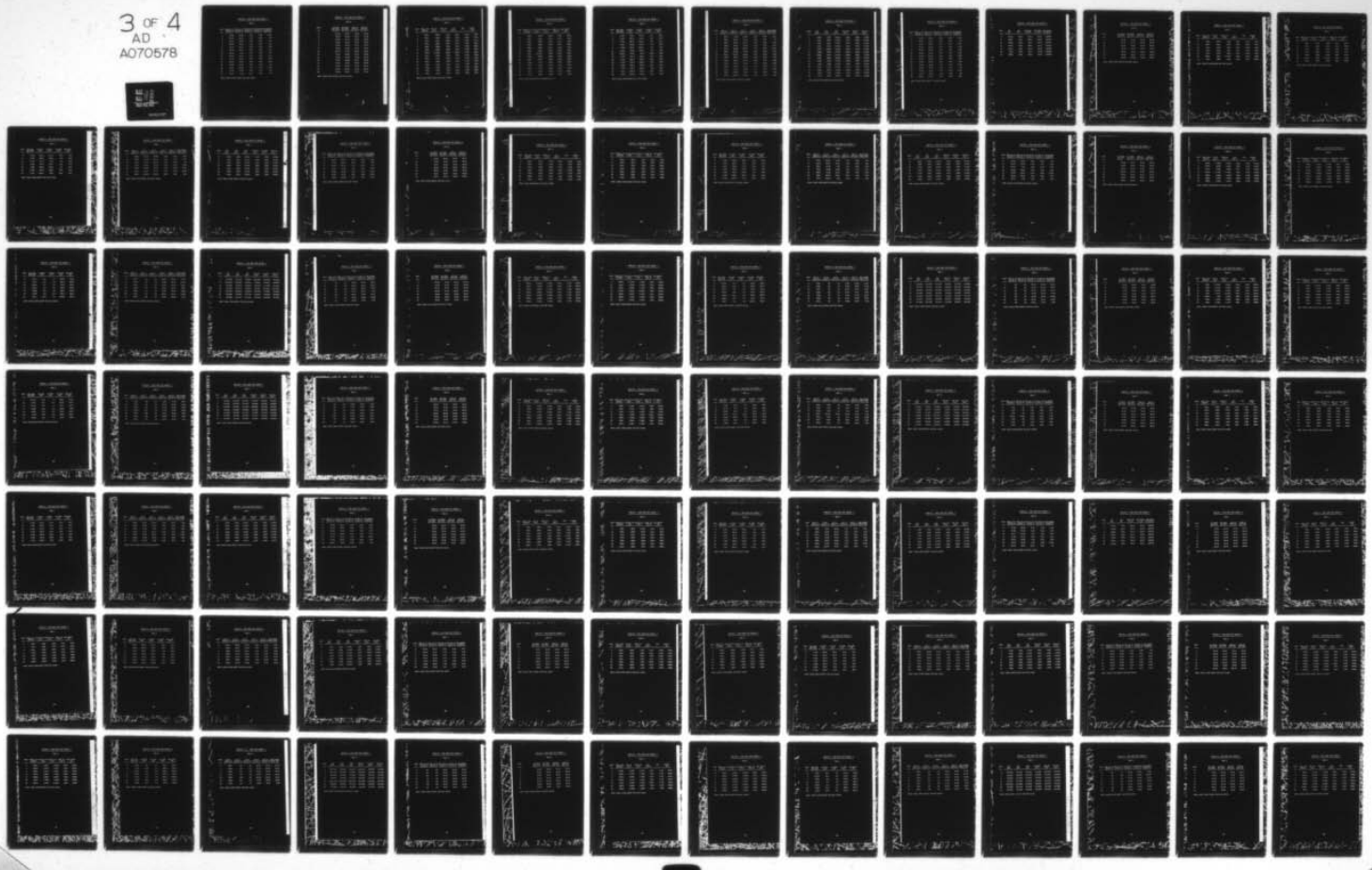
MODE 7

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .6120 | .4740 | 3.7690 | .6600 | .5050 | 4.5550 |
| 2 | .6280 | .5060 | 3.9280 | .6440 | .5140 | 4.5960 |
| 6 | .6170 | .5040 | 3.9060 | .6540 | .5290 | 4.6700 |
| 7 | .5770 | .4380 | 3.6270 | .6120 | .4600 | 4.3320 |
| 9 | .5780 | .4850 | 3.8330 | .6600 | .5560 | 4.7950 |
| 11 | .5870 | .5060 | 3.9850 | .6210 | .5350 | 4.6990 |
| 12 | -.6590 | .4940 | 3.8660 | .6510 | .4840 | 4.4530 |
| 13 | .6270 | .5090 | 3.8880 | .6510 | .5230 | 4.6390 |
| 16 | .5820 | .4610 | 3.9550 | .5760 | .4510 | 4.2870 |
| 20 | .5590 | .4230 | 3.6080 | .5750 | .4350 | 4.2090 |
| 22 | .5640 | .4580 | 3.7940 | .5890 | .4790 | 4.4260 |
| 23 | .5630 | .4070 | 3.5080 | .5320 | .3820 | 3.9450 |
| 24 | .5920 | .5090 | 3.9050 | .5640 | .4820 | 4.4390 |
| 25 | .5760 | .4710 | 3.6610 | .5550 | .4510 | 4.2480 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

AD-A070 578 NORTHERN RESEARCH AND ENGINEERING CORP CAMBRIDGE MASS F/G 13/2
TIME DEGRADATION FACTORS FOR TURBINE ENGINE EXHAUST EMISSIONS, --ETC(U)
MAY 78 DOT-FA74NA-1100
UNCLASSIFIED NREC-1238-11 FAA-RD-78-56-6 NL

3 OF 4
AD
A070578



JT9D-3A * 1200 HOUR TEST SERIES *

MODE 7

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 58.20 | 12.83 | 2.31 | 4.82 | -3.47 |
| 2 | 67.48 | 15.83 | 1.51 | 4.52 | .26 |
| 6 | 67.06 | 25.89 | 1.57 | 4.01 | 1.33 |
| 7 | 66.80 | 13.43 | 1.91 | 4.00 | 1.18 |
| 9 | 66.33 | 25.34 | 2.09 | 4.46 | 1.99 |
| 11 | 50.89 | 12.18 | 2.12 | 4.63 | 1.31 |
| 12 | 44.08 | 7.42 | 2.71 | 4.15 | 1.17 |
| 13 | 57.95 | 19.13 | 2.35 | 4.19 | 1.43 |
| 16 | 74.26 | 27.25 | 2.36 | 3.98 | 2.09 |
| 20 | 65.25 | 18.22 | 1.98 | 3.98 | 2.00 |
| 22 | 72.90 | 16.23 | 3.04 | 4.05 | .66 |
| 23 | 78.40 | -31.29 | 1.70 | 3.42 | 0.00 |
| 24 | 43.79 | 10.65 | 3.12 | 4.77 | .92 |
| 25 | -35.33 | 9.64 | -3.65 | 4.55 | .13 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 8

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 1 | 28.40 | 65.40 | 28.68 | 66.04 |
| 2 | 28.00 | 65.80 | 28.11 | 66.06 |
| 6 | 25.50 | 64.30 | 25.70 | 64.80 |
| 7 | 28.50 | 65.00 | 28.72 | 65.51 |
| 9 | 27.00 | 63.60 | 27.44 | 64.64 |
| 11 | 29.00 | 64.50 | 29.21 | 64.97 |
| 12 | -22.50 | 64.50 | -22.48 | 64.44 |
| 13 | 27.00 | 64.50 | 27.14 | 64.84 |
| 16 | 27.50 | 65.00 | 27.50 | 65.00 |
| 20 | 28.50 | 64.80 | 28.61 | 65.05 |
| 22 | 27.50 | 65.00 | 27.65 | 65.35 |
| 23 | 26.50 | 65.00 | 26.32 | 64.57 |
| 24 | 26.50 | -63.50 | 26.35 | -63.14 |
| 25 | 28.50 | 65.00 | 28.38 | 64.72 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 8

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT4 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 1 | 2000. | .9550 | .9770 | 1165. | 1.020 | 3703. |
| 2 | 1900. | .9300 | .8040 | 1169. | 1.020 | 3708. |
| 6 | 1800. | .9040 | .8690 | 1154. | 1.020 | 3314. |
| 7 | 1950. | .9080 | .8960 | 1183. | 1.020 | 3536. |
| 9 | 1800. | .8860 | .9310 | 1138. | 1.015 | 3298. |
| 11 | 1900. | .8180 | .8930 | 1120. | 1.020 | 3384. |
| 12 | 1700. | -1.1030 | .8650 | -1323. | 1.015 | 3212. |
| 13 | 1740. | .9270 | .8300 | 1174. | 1.015 | 3320. |
| 16 | 2000. | .8910 | .9050 | 1160. | 1.020 | 3355. |
| 20 | 1900. | .9040 | .8800 | 1151. | 1.015 | 3406. |
| 22 | 1900. | .8730 | .8780 | 1178. | 1.020 | 3515. |
| 23 | 1800. | .9290 | .8440 | 1226. | 1.015 | 3255. |
| 24 | 1700. | .8230 | .8930 | 1167. | 1.015 | -2828. |
| 25 | 1700. | .8410 | .7840 | 1185. | 1.020 | 3301. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 8

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 1 | 1999. | .9740 | .8940 | 1188. | 3738. |
| 2 | 1910. | .9380 | .9100 | 1178. | 3743. |
| 6 | 1900. | .9190 | .8830 | 1172. | 3340. |
| 7 | 1950. | .9230 | .9100 | 1201. | 3565. |
| 9 | 1768. | .9150 | -.9620 | 1175. | 3291. |
| 11 | 1891. | .8300 | .9060 | 1136. | 3391. |
| 12 | 1712. | -1.1010 | .8630 | -1321. | 3231. |
| 13 | 1748. | .9370 | .8390 | 1186. | 3353. |
| 16 | 2027. | .8910 | .9050 | 1160. | 3600. |
| 20 | 1898. | .9110 | .8870 | 1159. | 3617. |
| 22 | 1899. | .8830 | .8870 | 1188. | 3513. |
| 23 | 1821. | .9170 | .8330 | 1210. | 3270. |
| 24 | 1718. | .8130 | .8830 | 1153. | -2841. |
| 25 | 1715. | .8340 | .7770 | 1175. | 3316. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1200 HOUR TEST SERIES •

MODE 8

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 1 | 1.867 | 776.4 | 186.7 | 9.3 | 20.4 |
| 2 | 1.807 | 836.0 | 192.9 | 5.6 | 18.9 |
| 6 | 1.722 | 905.7 | -264.4 | 5.9 | 14.6 |
| 7 | 1.761 | 835.5 | 187.3 | 7.8 | 15.8 |
| 9 | 1.689 | 905.4 | -263.4 | 7.6 | 14.8 |
| 11 | 1.584 | 731.5 | 185.6 | 7.7 | 15.4 |
| 12 | -2.213 | 715.1 | 93.3 | 13.8 | 18.5 |
| 13 | 1.797 | 771.3 | 222.1 | 9.1 | 15.1 |
| 16 | 1.714 | 860.9 | 222.9 | 10.3 | 15.7 |
| 20 | 1.753 | 784.0 | 205.2 | 8.0 | 15.2 |
| 22 | 1.690 | 828.1 | 197.9 | 12.1 | 15.4 |
| 23 | 1.796 | 817.8 | 224.9 | 7.0 | 15.2 |
| 24 | 1.633 | -509.0 | 122.7 | 10.7 | 18.1 |
| 25 | 1.697 | -398.6 | -75.9 | 13.1 | 17.4 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 8

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 1 | 2943. | 77.90 | 32.18 | 1.53 | 3.37 | 2.10 |
| 2 | 2925. | 86.11 | 34.14 | -.95 | 3.21 | .91 |
| 6 | 2868. | 96.03 | 40.15 | 1.03 | 2.54 | 3.27 |
| 7 | 2920. | 88.15 | 33.95 | 1.36 | 2.74 | 2.12 |
| 9 | 2872. | 98.00 | -48.98 | 1.36 | 2.63 | -4.71 |
| 11 | 2919. | 85.76 | 37.38 | 1.48 | 2.96 | 2.49 |
| 12 | -3014. | -61.96 | -13.89 | 1.96 | 2.64 | 2.63 |
| 13 | 2920. | 79.76 | 39.46 | 1.54 | 2.56 | 1.95 |
| 16 | 2897. | 92.61 | 41.19 | 1.82 | 2.78 | 1.69 |
| 20 | 2923. | 83.18 | 37.40 | 1.40 | 2.66 | 2.85 |
| 22 | 2915. | 90.93 | 37.34 | 2.18 | 2.78 | 1.30 |
| 23 | 2910. | 84.34 | 39.84 | 1.19 | 2.57 | -3.52 |
| 24 | 2991. | -59.32 | 24.57 | 2.04 | 3.47 | .66 |
| 25 | -3039. | -45.43 | -14.86 | 2.44 | 3.26 | 0.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1200 HOUR TEST SERIES •

MODE 8

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 1 | .4550 | .2720 | 2.8440 | .4890 | .2890 | 3.4250 |
| 2 | .4620 | .2850 | 2.9340 | .4740 | .2890 | 3.4280 |
| 6 | .4080 | .2410 | 2.6730 | .4310 | .2530 | 3.1840 |
| 7 | .4280 | .2610 | 2.7860 | .4520 | .2730 | 3.3190 |
| 9 | .3750 | -.2180 | 2.5420 | .4250 | .2480 | 3.1520 |
| 11 | .3840 | .2440 | 2.7370 | .4040 | .2580 | 3.2160 |
| 12 | -.5040 | .2470 | 2.7030 | -.4980 | .2430 | 3.1150 |
| 13 | .4240 | .2480 | 2.6920 | .4390 | .2540 | 3.1920 |
| 16 | .4300 | .2650 | 2.9720 | .4260 | .2580 | 3.2210 |
| 20 | .4230 | .2530 | 2.7730 | .4350 | .2600 | 3.2310 |
| 22 | .4150 | .2570 | 2.8240 | .4320 | .2680 | 3.2860 |
| 23 | .4490 | .2620 | 2.7960 | .4240 | .2460 | 3.1390 |
| 24 | .3820 | .2340 | 2.5740 | .3650 | .2220 | 2.9360 |
| 25 | .4140 | .2610 | 2.7010 | .3890 | .2510 | 3.1680 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1200 HOUR TEST SERIES *

MODE 8

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 1 | 72.43 | 10.31 | 1.98 | 4.35 | 2.10 |
| 2 | 84.01 | 33.67 | 1.19 | 4.02 | .80 |
| 6 | 90.87 | 45.99 | 1.31 | 3.24 | 2.65 |
| 7 | 83.37 | 32.41 | 1.74 | 3.51 | 2.12 |
| 9 | 86.36 | 43.09 | 1.81 | 3.51 | 1.99 |
| 11 | 81.33 | 35.47 | 1.87 | 3.73 | 2.49 |
| 12 | 62.73 | -14.14 | 2.43 | 3.27 | 2.63 |
| 13 | 77.00 | 38.54 | 1.97 | 3.27 | 1.95 |
| 16 | 93.49 | 42.19 | 2.12 | 3.24 | 1.69 |
| 20 | 80.84 | 36.49 | 1.75 | 3.32 | 2.66 |
| 22 | 87.18 | 35.77 | 2.72 | 3.47 | 1.30 |
| 23 | 89.23 | 42.35 | 1.34 | 2.90 | -3.52 |
| 24 | 62.08 | 25.90 | 2.33 | 3.95 | .66 |
| 25 | -47.09 | -15.50 | 2.87 | 3.82 | 0.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

| UNIT | TSO HR | TSB HR | AMB TEMP DEG R | AMB PRESS IN HG | AMB HUMID LB H2O/AIR |
|---|---|---|---|---|---|
| 9 | 15294. | 1609. | 513.2 | 30.02 | .005310 |
| 11 | 15602. | 1544. | 520.7 | 29.90 | .007270 |
| 12 | 15049. | 1524. | 518.7 | 29.97 | .007700 |
| 13 | 13624. | 1499. | 508.7 | 30.10 | .006310 |
| 16 | 14063. | 1526. | 519.7 | 29.96 | .006390 |
| 20 | 9713. | 1490. | 511.7 | 29.94 | .006660 |
| 21 | 16891. | 1624. | 524.2 | 30.03 | .009850 |

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 1

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 27.50 | 63.90 | 27.65 | 64.24 |
| 11 | 29.70 | 66.10 | 29.64 | 65.97 |
| 12 | 28.30 | 64.50 | 28.30 | 64.50 |
| 13 | 28.50 | 65.50 | 28.78 | 66.14 |
| 16 | 28.70 | 64.50 | 28.67 | 64.44 |
| 20 | 29.50 | 65.00 | 29.70 | 65.44 |
| 21 | 26.50 | -63.50 | 26.36 | -63.17 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 1

| UNIT | FUEL FLOW LAM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 1830. | .9000 | .9190 | 1149. | 1.016 | 3162. |
| 11 | 2000. | .8430 | .8260 | 1151. | 1.020 | 3719. |
| 12 | 1840. | .9370 | .8940 | 1196. | 1.020 | 3245. |
| 13 | 1900. | .8690 | .8260 | 1161. | 1.020 | 3748. |
| 16 | 2000. | .9370 | .9580 | 1141. | 1.020 | 3227. |
| 20 | -2300. | .9320 | -1.0450 | 1136. | 1.015 | 3542. |
| 21 | 1800. | .8860 | .9480 | 1170. | 1.015 | -2839. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 1

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 1826. | .9100 | .9290 | 1161. | 3172. |
| 11 | 2003. | .8400 | .8230 | 1146. | 3716. |
| 12 | 1843. | .9370 | .8940 | 1196. | 3250. |
| 13 | 1893. | .8860 | .8430 | 1184. | 3771. |
| 16 | 2005. | .9350 | .9560 | 1159. | 3231. |
| 20 | -2286. | .9450 | -1.0590 | 1152. | 3544. |
| 21 | 1816. | .8770 | .9390 | 1158. | -2850. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 1

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | 1.734 | 866.3 | 217.9 | 10.8 | 15.7 |
| 11 | 1.679 | 619.2 | -82.6 | 9.9 | 16.6 |
| 12 | 1.871 | 671.5 | 85.0 | 9.9 | 15.8 |
| 13 | 1.682 | 739.3 | 217.7 | 14.6 | 16.3 |
| 16 | 1.806 | 899.5 | 232.9 | 7.0 | 15.5 |
| 20 | 1.803 | 813.8 | 224.8 | 10.2 | 16.1 |
| 21 | 1.774 | -524.9 | 95.9 | 15.8 | 18.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 1

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 2904. | 92.30 | 39.89 | 1.89 | 2.74 | 1.97 |
| 11 | 2999. | 70.40 | -16.13 | 1.84 | 3.10 | 1.31 |
| 12 | 3007. | 68.67 | -14.93 | 1.67 | 2.66 | .79 |
| 13 | 2919. | 81.64 | 41.30 | 2.66 | 2.96 | 2.09 |
| 16 | 2903. | 92.06 | 40.94 | 1.18 | 2.60 | 2.76 |
| 20 | 2913. | 83.67 | 39.71 | 1.72 | 2.72 | -4.58 |
| 21 | -3013. | -56.74 | -17.81 | 2.81 | 3.24 | 1.46 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 1

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | .3970 | .2300 | 2.6830 | .4130 | .2380 | 3.0790 |
| 11 | .4400 | .2910 | 3.0130 | .4340 | .2870 | 3.4120 |
| 12 | .4300 | .2450 | 2.7030 | .4300 | .2450 | 3.1270 |
| 13 | .4240 | .2730 | 2.8540 | .4550 | .2920 | 3.4450 |
| 16 | .4310 | .2450 | 2.7800 | .4270 | .2430 | 3.1150 |
| 20 | .4350 | .2570 | 2.7740 | .4590 | .2710 | 3.3070 |
| 21 | .4010 | .2340 | 2.5850 | .3840 | .2230 | 2.9390 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 1

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | 88.75 | 38.51 | 2.32 | 3.38 | 1.74 |
| 11 | 71.38 | -16.36 | 2.24 | 3.77 | 1.31 |
| 12 | 68.72 | -14.97 | 2.07 | 3.30 | .79 |
| 13 | 76.01 | 38.67 | 3.44 | 3.84 | 2.09 |
| 16 | 92.82 | 41.35 | 1.42 | 3.13 | 2.76 |
| 20 | 79.25 | 37.70 | 2.20 | 3.48 | -4.02 |
| 21 | 59.21 | 18.68 | 3.20 | 3.49 | 1.46 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 2

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 33.60 | 69.80 | 33.78 | 70.17 |
| 11 | 33.80 | 69.40 | 33.74 | 69.27 |
| 12 | 33.50 | 69.50 | 33.50 | 69.50 |
| 13 | 32.50 | 69.00 | 32.82 | 69.67 |
| 16 | 33.60 | 69.20 | 33.57 | 69.13 |
| 20 | 34.70 | 69.80 | 34.94 | 70.28 |
| 21 | 32.40 | 69.40 | 32.23 | 69.03 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 2

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 2300. | .9110 | .7780 | 1176. | 1.025 | 5145. |
| 11 | 2250. | .8650 | .7650 | 1161. | 1.023 | 4847. |
| 12 | 2260. | .9400 | .7820 | 1212. | 1.026 | 4917. |
| 13 | 2200. | .8830 | .7550 | 1181. | -1.050 | 4956. |
| 16 | 2350. | .9300 | .8070 | 1179. | 1.025 | 4790. |
| 20 | 2450. | .9470 | .8260 | 1160. | 1.022 | 5195. |
| 21 | 2100. | .9010 | .7190 | 1188. | 1.020 | 4745. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 2

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 2295. | .9210 | .7870 | 1188. | 5162. |
| 11 | 2253. | .8610 | .7620 | 1157. | 4843. |
| 12 | 2264. | .9400 | .7820 | 1212. | 4925. |
| 13 | 2192. | .9000 | .7690 | 1204. | 4986. |
| 16 | 2355. | .9280 | .8050 | 1177. | 4797. |
| 20 | 2435. | .9600 | .8370 | 1175. | 5199. |
| 21 | 2119. | .8910 | .7110 | 1176. | 4762. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 2

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | 1.825 | 625.9 | 82.4 | 11.4 | 20.4 |
| 11 | 1.745 | 500.5 | 54.3 | 10.5 | 19.5 |
| 12 | 1.912 | 465.9 | 45.1 | 11.4 | 19.4 |
| 13 | 1.752 | 586.4 | 137.5 | 16.8 | 19.2 |
| 16 | 1.842 | 491.7 | 136.7 | 7.5 | 19.0 |
| 20 | 1.889 | 585.2 | 122.2 | 12.1 | 20.4 |
| 21 | 1.839 | -347.8 | 41.1 | 19.1 | 22.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 2

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 3014. | 65.81 | 14.89 | 1.97 | 3.53 | .66 |
| 11 | 3038. | 55.47 | 10.34 | 1.92 | 3.55 | 1.56 |
| 12 | 3060. | 47.45 | 7.88 | 1.91 | 3.25 | 1.95 |
| 13 | 2990. | 63.68 | 25.65 | 3.00 | 3.43 | 1.45 |
| 16 | 2982. | 71.28 | 24.19 | 1.27 | 3.21 | 3.27 |
| 20 | 3002. | 59.18 | 21.24 | 2.04 | 3.39 | 1.70 |
| 21 | 3073. | -36.98 | 7.54 | 3.34 | 3.89 | 1.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 2

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | .6600 | .5300 | 4.1450 | .6680 | .5510 | 4.7710 |
| 11 | .5880 | .4770 | 3.8740 | .5790 | .4700 | 4.3840 |
| 12 | .6370 | .4920 | 3.8740 | .6360 | .4900 | 4.4810 |
| 13 | .5790 | .4720 | 3.7610 | .6240 | .5050 | 4.5550 |
| 16 | .4120 | .4650 | 3.8680 | .6070 | .4600 | 4.3320 |
| 20 | .4610 | .5300 | 4.0270 | .7000 | .5600 | 4.8170 |
| 21 | .6090 | .4760 | 3.7910 | .5820 | .4530 | 4.2990 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 2

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX E? LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | 63.07 | 14.33 | 2.43 | 4.36 | .66 |
| 11 | 56.28 | 10.49 | 2.33 | 4.31 | 1.45 |
| 12 | 47.48 | 7.91 | 2.38 | 4.04 | 1.95 |
| 13 | 59.06 | 23.94 | 3.91 | 4.47 | 1.45 |
| 16 | 71.89 | 24.44 | -1.53 | 3.86 | -3.27 |
| 20 | 55.84 | 20.10 | 2.61 | 4.36 | 1.70 |
| 21 | 38.71 | 7.93 | 3.78 | 4.41 | 1.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 3

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 90.00 | 94.00 | 90.48 | 94.50 |
| 11 | 89.70 | 95.00 | 89.53 | 94.82 |
| 12 | 90.50 | 93.70 | 90.50 | 93.70 |
| 13 | -87.40 | 94.30 | 88.25 | 95.22 |
| 16 | 89.50 | 94.40 | 89.41 | 94.31 |
| 20 | 88.50 | 93.80 | 89.10 | 94.44 |
| 21 | 90.00 | 94.00 | 89.53 | 93.51 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 3

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 15900. | 1.8950 | 1.9240 | 1862. | 1.400 | 40764. |
| 11 | 15700. | 1.8620 | 1.9160 | 1880. | 1.400 | 40927. |
| 12 | 15300. | 1.8620 | 1.8560 | 1867. | 1.400 | 40832. |
| 13 | -14600. | -1.7480 | -1.7480 | 1840. | 1.400 | 40655. |
| 16 | 16000. | 1.8510 | 1.9590 | 1898. | 1.400 | 40845. |
| 20 | 15500. | 1.8570 | 1.8830 | 1869. | 1.400 | 40873. |
| 21 | 15800. | 1.9100 | 1.9110 | 1862. | 1.400 | 40750. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 3

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 15868. | 1.9160 | 1.9440 | 1881. | 40900. |
| 11 | 15720. | 1.8550 | 1.9090 | 1872. | 40900. |
| 12 | 15326. | 1.8620 | 1.8560 | 1867. | 40900. |
| 13 | -14546. | 1.7820 | -1.7830 | 1876. | 40900. |
| 16 | 16037. | 1.8480 | 1.9550 | 1894. | 40900. |
| 20 | 15405. | 1.8830 | 1.9090 | 1894. | 40900. |
| 21 | 15942. | 1.8900 | 1.8910 | 1842. | 40900. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 3

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | 4.017 | 8.9 | 1.3 | 289.3 | 279.6 |
| 11 | 3.941 | 8.6 | 1.4 | 293.3 | 290.8 |
| 12 | 3.943 | 8.1 | 1.2 | 241.8 | 248.4 |
| 13 | -3.701 | 8.1 | 3.9 | 273.0 | 268.7 |
| 16 | 3.925 | 9.5 | 1.9 | 282.7 | 270.9 |
| 20 | 3.929 | 8.6 | 5.9 | 249.7 | 256.0 |
| 21 | 4.041 | 10.7 | 3.4 | -363.0 | 347.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 3

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 3157. | .44 | .11 | 23.77 | 23.77 | 17.72 |
| 11 | 3153. | .44 | .12 | 24.52 | 24.52 | 21.18 |
| 12 | 3155. | .41 | .10 | 20.23 | 20.78 | 18.61 |
| 13 | 3159. | .44 | .37 | 24.36 | 24.36 | 8.05 |
| 16 | 3159. | .49 | .16 | 23.79 | 23.79 | 13.82 |
| 20 | 3151. | .44 | .52 | 20.94 | 21.47 | 17.63 |
| 21 | 3150. | .53 | .29 | 29.58 | 29.58 | 7.24 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 3

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | 94.6380 | 81.0110 | 76.8080 | 108.6970 | 86.0010 | 90.4600 |
| 11 | 100.0160 | 94.5570 | 84.5570 | 95.6640 | 92.4220 | 94.8490 |
| 12 | 79.4790 | 71.5970 | 69.2650 | 79.6310 | 71.3820 | 80.1140 |
| 13 | 66.5570 | 90.7030 | 79.6200 | 83.1230 | 101.2940 | 100.7810 |
| 16 | 87.1730 | 83.4460 | 78.7800 | 85.3160 | 82.2600 | 87.8610 |
| 20 | 81.6420 | 78.0590 | 72.7770 | 96.9700 | 84.7660 | 89.6060 |
| 21 | 95.3980 | 73.2120 | 70.1490 | 83.4660 | 68.1850 | 77.7760 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 3

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | .39 | .11 | 27.99 | 27.99 | 15.83 |
| 11 | .46 | .12 | 29.73 | 29.73 | 17.06 |
| 12 | .41 | .10 | 25.28 | 25.97 | 14.92 |
| 13 | .35 | .33 | 33.33 | 33.33 | 7.53 |
| 16 | .50 | .17 | 26.53 | 26.53 | 11.03 |
| 20 | .37 | .48 | 27.87 | 28.56 | 13.50 |
| 21 | .61 | .31 | 32.80 | 32.80 | 6.78 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 4

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 84.00 | 91.70 | 84.45 | 92.19 |
| 11 | 84.90 | 92.40 | 84.74 | 92.22 |
| 12 | 85.10 | 91.80 | 85.10 | 91.80 |
| 13 | -81.50 | 91.70 | -82.30 | 92.60 |
| 16 | 84.00 | 92.40 | 83.92 | 92.31 |
| 20 | 84.00 | 92.20 | 84.57 | 92.83 |
| 21 | 85.00 | 92.50 | 84.55 | 92.01 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 4

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 13100. | -1.7380 | 1.7660 | 1766. | 1.310 | 34339. |
| 11 | 13000. | 1.6760 | 1.7670 | 1781. | 1.310 | 34476. |
| 12 | 12600. | 1.6810 | 1.7100 | 1759. | 1.305 | 34003. |
| 13 | -11800. | 1.5660 | -1.5630 | 1721. | 1.310 | 34247. |
| 16 | 13000. | 1.6740 | 1.7650 | 1784. | 1.310 | 34407. |
| 20 | 12950. | 1.6900 | 1.7550 | 1775. | 1.310 | 34430. |
| 21 | 13000. | 1.6620 | 1.7450 | 1754. | 1.310 | 34327. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 4

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 13074. | -1.7570 | 1.7850 | 1785. | 34453. |
| 11 | 13016. | 1.6690 | 1.7600 | 1774. | 34453. |
| 12 | 12621. | 1.6810 | 1.7100 | 1759. | 34060. |
| 13 | -11756. | 1.5970 | -1.5940 | 1755. | 34453. |
| 16 | 13030. | 1.6710 | 1.7620 | 1781. | 34453. |
| 20 | 12871. | 1.7130 | 1.7790 | 1799. | 34453. |
| 21 | 13117. | 1.6440 | 1.7270 | 1735. | 34453. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 4

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | -3.679 | 9.3 | 1.0 | 200.5 | 193.3 |
| 11 | 3.540 | 8.8 | 1.2 | 204.0 | 199.3 |
| 12 | 3.554 | 8.2 | 1.0 | 167.8 | 172.3 |
| 13 | 3.310 | 9.2 | 1.8 | 175.1 | 166.3 |
| 16 | 3.542 | 10.1 | 1.3 | 192.4 | 185.0 |
| 20 | 3.569 | 8.8 | 3.7 | 176.7 | 177.4 |
| 21 | 3.507 | 9.1 | 1.8 | -245.4 | 238.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 4

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 3157. | .51 | .10 | 17.99 | 17.99 | 13.19 |
| 11 | 3152. | .50 | .12 | 18.99 | 18.99 | 17.28 |
| 12 | 3155. | .46 | .09 | 15.57 | 16.00 | 14.29 |
| 13 | 3159. | .56 | .19 | 17.47 | 17.47 | 5.81 |
| 16 | 3159. | .57 | .12 | 17.94 | 17.94 | 12.19 |
| 20 | 3152. | .50 | .36 | 16.31 | 16.38 | 13.43 |
| 21 | 3150. | .52 | .18 | 23.05 | 23.05 | 4.38 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 4

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | 40.2700 | 46.9780 | 54.1590 | 45.1540 | 49.7330 | 63.5960 |
| 11 | 37.8020 | 51.1400 | 56.8540 | 36.4560 | 50.0420 | 63.8520 |
| 12 | 35.2900 | 46.2670 | 52.3830 | 35.3180 | 46.1280 | 60.5880 |
| 13 | 27.4240 | 49.3900 | 53.7810 | 32.8560 | 54.8390 | 67.6570 |
| 16 | 37.8380 | 51.8530 | 58.0130 | 37.1540 | 51.1380 | 64.7310 |
| 20 | 39.1710 | 53.5470 | 57.0990 | 45.2300 | 58.0050 | 70.1150 |
| 21 | 37.0850 | 51.5250 | 56.0120 | 33.3580 | 48.0710 | 62.2180 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 4

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | .45 | .09 | 21.12 | 21.12 | 10.75 |
| 11 | .52 | .12 | 21.33 | 21.33 | 13.97 |
| 12 | .46 | .09 | 18.01 | 18.50 | 13.16 |
| 13 | .47 | .17 | 21.98 | 21.98 | 5.39 |
| 16 | .58 | .12 | 21.64 | 21.64 | 10.60 |
| 20 | .43 | .33 | 20.03 | 20.11 | 11.96 |
| 21 | .58 | .19 | -27.66 | 27.66 | 4.38 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 5

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 76.00 | 89.00 | 76.41 | 89.48 |
| 11 | 76.30 | 88.50 | 76.15 | -88.33 |
| 12 | 77.00 | 90.00 | 77.00 | 90.00 |
| 13 | 74.00 | 89.20 | 74.72 | 90.07 |
| 16 | 77.00 | 89.80 | 76.93 | 89.71 |
| 20 | 75.00 | 88.80 | 75.51 | 89.41 |
| 21 | 74.50 | 89.50 | 74.11 | 89.03 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

### MODE 5

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 9700. | -1.5140 | 1.5340 | 1628. | 1.210 | 26498. |
| 11 | 9650. | 1.4310 | 1.5660 | 1626. | 1.200 | 25817. |
| 12 | 9900. | -1.5040 | 1.5550 | 1649. | 1.217 | 27092. |
| 13 | 9000. | 1.3670 | -1.3840 | 1586. | 1.215 | 26819. |
| 16 | 10000. | .4680 | 1.5970 | 1651. | 1.210 | 26551. |
| 20 | 9600. | 1.4590 | 1.5390 | 1628. | 1.205 | 26176. |
| 21 | 9000. | 1.3540 | 1.4770 | 1584. | 1.190 | 24629. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 5

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 9681. | -1.5300 | 1.5510 | 1645. | 26587. |
| 11 | 9662. | 1.4250 | 1.5600 | 1619. | 25800. |
| 12 | 9917. | 1.5040 | 1.5550 | 1649. | 27137. |
| 13 | 8966. | 1.3940 | -1.4120 | 1617. | 26980. |
| 16 | 10023. | 1.4660 | 1.5940 | 1648. | 26597. |
| 20 | 9541. | 1.4790 | 1.5610 | 1650. | 26193. |
| 21 | 9081. | 1.3390 | 1.4620 | -1568. | 24720. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | -3.197 | 14.3 | .9 | 115.7 | 112.9 |
| 11 | 3.014 | 11.7 | 1.0 | 112.8 | 111.5 |
| 12 | -3.174 | 10.1 | .8 | 109.1 | 112.5 |
| 13 | 2.884 | 16.1 | 1.3 | 104.8 | 97.8 |
| 16 | 3.100 | 15.7 | 1.2 | 113.9 | 112.1 |
| 20 | 3.075 | 14.8 | 2.3 | 102.6 | 105.1 |
| 21 | 2.847 | 12.6 | 1.5 | 121.6 | 119.5 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 3156. | .90 | .10 | 11.94 | 11.94 | 8.16 |
| 11 | 3152. | .78 | .12 | 12.33 | 12.33 | 11.84 |
| 12 | 3155. | .64 | .08 | 11.34 | 11.69 | 8.29 |
| 13 | 3158. | 1.12 | .15 | 11.99 | 11.99 | 5.06 |
| 16 | 3158. | 1.02 | .13 | 12.13 | 12.13 | 8.55 |
| 20 | 3151. | .96 | .25 | 10.99 | 11.26 | 8.50 |
| 21 | 3149. | .88 | .18 | 14.06 | 14.06 | 3.03 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 5

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | 16.5840 | 27.4990 | 38.6330 | 18.1570 | 29.0350 | 45.2370 |
| 11 | 13.0280 | 23.5720 | 34.9140 | 12.6640 | 23.0970 | 39.2480 |
| 12 | -18.5090 | 32.3660 | 41.7740 | -18.5180 | 32.2690 | 48.3170 |
| 13 | 13.0440 | 29.6320 | 38.9560 | 15.1250 | 32.7480 | 48.7640 |
| 16 | 16.7340 | 30.8450 | 41.7310 | 16.4800 | 30.4340 | 46.5460 |
| 20 | 14.5070 | 26.5530 | 36.6950 | 16.2370 | 28.6360 | 44.8480 |
| 21 | 12.9300 | 28.4100 | 38.4300 | 11.9240 | 26.5830 | 42.8210 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 5

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | .82 | .09 | 13.98 | 13.98 | 7.80 |
| 11 | .80 | .12 | 13.87 | 13.87 | 9.89 |
| 12 | .64 | .08 | 13.12 | 13.52 | 8.29 |
| 13 | .97 | .14 | 15.01 | 15.01 | 5.01 |
| 16 | 1.04 | .13 | 14.63 | 14.63 | 8.18 |
| 20 | .86 | .24 | 13.44 | 13.76 | 7.47 |
| 21 | .96 | .19 | 16.93 | 16.93 | 3.03 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 6

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 55.50 | 82.70 | 55.80 | 83.14 |
| 11 | 55.60 | 81.80 | 55.49 | -81.64 |
| 12 | 57.30 | 83.80 | 57.30 | 83.80 |
| 13 | -45.50 | -78.50 | -45.95 | -79.27 |
| 16 | 56.00 | 84.00 | 55.95 | 83.92 |
| 20 | 57.00 | 83.30 | 57.39 | 83.87 |
| 21 | -53.00 | 84.10 | -52.72 | 83.66 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 6

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 5100. | 1.1780 | 1.2280 | 1390. | 1.080 | 12199. |
| 11 | 5000. | 1.1090 | 1.1980 | 1365. | 1.080 | 12248. |
| 12 | 5300. | 1.1970 | 1.2430 | 1426. | 1.086 | -13046. |
| 13 | -3700. | -.9780 | -.8780 | -1273. | -1.075 | -11481. |
| 16 | 5250. | 1.1660 | 1.2750 | 1406. | 1.080 | 12224. |
| 20 | 5400. | 1.2080 | 1.2660 | 1403. | 1.085 | 12921. |
| 21 | 5000. | 1.0920 | 1.2010 | 1385. | 1.080 | 12195. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 6

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 5090. | 1.1910 | 1.2410 | 1405. | 12240. |
| 11 | 5006. | 1.1040 | 1.1930 | 1359. | 12240. |
| 12 | 5309. | 1.1970 | 1.2430 | 1426. | 13068. |
| 13 | -3686. | -.9980 | -.8950 | -1298. | -11550. |
| 16 | 5262. | 1.1640 | 1.2720 | 1403. | 12240. |
| 20 | 5367. | 1.2240 | 1.2830 | 1422. | 12930. |
| 21 | 5045. | 1.0810 | 1.1880 | 1370. | 12240. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 6

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | 2.469 | 97.8 | 3.8 | 40.5 | 49.0 |
| 11 | 2.421 | 71.0 | 2.6 | 40.8 | 46.9 |
| 12 | 2.514 | 47.4 | 1.6 | 44.4 | 51.2 |
| 13 | -2.031 | -211.6 | -14.8 | -27.8 | -31.6 |
| 16 | 2.443 | 110.3 | 5.3 | 37.9 | 49.6 |
| 20 | 2.530 | 86.7 | 4.3 | 42.5 | 51.7 |
| 21 | 2.288 | -42.2 | 2.3 | -52.5 | 58.2 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 6

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 3144. | 7.93 | .53 | 5.40 | 6.53 | 2.89 |
| 11 | 3143. | 6.12 | .38 | 5.78 | 6.64 | 4.07 |
| 12 | 3149. | 3.78 | .22 | 5.81 | 6.71 | 4.18 |
| 13 | -3121. | -20.70 | -2.49 | -4.46 | -5.07 | 1.32 |
| 16 | 3144. | 9.04 | .74 | 5.11 | 6.68 | 4.08 |
| 20 | 3141. | 6.85 | .58 | 5.51 | 6.71 | 4.94 |
| 21 | 3145. | 3.69 | .35 | -7.54 | 8.36 | 1.99 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 6

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | 4.1600 | 7.8430 | 17.9960 | 4.4320 | 8.2320 | 20.9400 |
| 11 | 3.3380 | 6.1710 | 15.5390 | 3.2700 | -6.0610 | -17.5190 |
| 12 | 4.8580 | 9.4140 | 19.5690 | 4.8570 | 9.3860 | 22.6340 |
| 13 | -1.9450 | -3.3940 | -10.7630 | -2.1370 | -3.6850 | -13.2200 |
| 16 | 4.7540 | 9.7290 | 20.5400 | 4.6980 | 9.6090 | 22.9540 |
| 20 | 4.6740 | 8.8790 | 18.7990 | 5.0920 | 9.5120 | 22.8160 |
| 21 | 4.3330 | 9.7040 | 19.8700 | 4.0680 | 9.1260 | 22.2580 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 6

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | 7.44 | .51 | 6.74 | 8.16 | 2.67 |
| 11 | 6.25 | .39 | 7.00 | 8.04 | 4.07 |
| 12 | 3.78 | .22 | 7.22 | 8.34 | 4.18 |
| 13 | -18.84 | -2.29 | 5.88 | -6.69 | 1.32 |
| 16 | 9.15 | .75 | 6.13 | 8.01 | 4.08 |
| 20 | 6.29 | .54 | 7.19 | 8.75 | 4.29 |
| 21 | 3.93 | .37 | 8.44 | 9.36 | 1.75 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 7

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 32.80 | 69.60 | 32.98 | 69.97 |
| 11 | 32.40 | 68.30 | 32.34 | 68.17 |
| 12 | 30.50 | 68.50 | 30.50 | 68.50 |
| 13 | 31.00 | 69.50 | 31.30 | 70.18 |
| 16 | 32.00 | 69.40 | 31.97 | 69.33 |
| 20 | 32.50 | 68.90 | 32.72 | 69.37 |
| 21 | 30.00 | 69.00 | 29.84 | 68.64 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 7

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 2200. | .8980 | .7480 | 1179. | 1.025 | 5073. |
| 11 | 2280. | .8540 | .7930 | 1160. | 1.020 | 4462. |
| 12 | 2200. | .9310 | .7790 | 1224. | 1.021 | 4567. |
| 13 | 2100. | .9000 | .7200 | 1201. | -1.050 | 5134. |
| 16 | 2200. | .8940 | .7550 | 1187. | 1.025 | 4860. |
| 20 | 2250. | .9070 | .7700 | 1160. | 1.020 | 4876. |
| 21 | 2000. | .8710 | .6940 | 1205. | 1.020 | 4606. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 7

| UNIT | CORR FU FL LBM/HR | COR CH F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 2196. | .9080 | .7560 | 1192. | 5090. |
| 11 | 2283. | .8510 | .7890 | 1155. | 4459. |
| 12 | 2204. | .9310 | .7790 | 1224. | 4575. |
| 13 | 2092. | .9180 | .7340 | 1225. | 5165. |
| 16 | 2205. | .8920 | .7530 | 1184. | 4867. |
| 20 | 2236. | .9200 | .7810 | 1175. | 4879. |
| 21 | 2018. | .8610 | .6870 | 1192. | 4623. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | 1.788 | 631.3 | 110.2 | 11.0 | 19.5 |
| 11 | 1.722 | 492.1 | 57.6 | 11.8 | 18.7 |
| 12 | 1.888 | 501.5 | 49.7 | 10.5 | 17.9 |
| 13 | 1.799 | 574.8 | 111.2 | 16.0 | 18.5 |
| 16 | 1.765 | 690.8 | 139.6 | 7.9 | 18.6 |
| 20 | 1.800 | 610.9 | 129.6 | 10.0 | 18.9 |
| 21 | 1.775 | -338.2 | 45.5 | -18.0 | 20.8 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 2997. | 67.37 | 20.19 | 1.92 | 3.43 | 1.33 |
| 11 | 3036. | 55.22 | 11.10 | 2.18 | 3.44 | 1.32 |
| 12 | 3051. | 51.56 | 8.78 | 1.78 | 3.03 | 2.58 |
| 13 | 3009. | 61.17 | 20.33 | 2.80 | 3.24 | 1.82 |
| 16 | 2973. | 74.08 | 25.73 | 1.40 | 3.28 | -4.61 |
| 20 | 2988. | 64.52 | 23.52 | 1.73 | 3.28 | 1.04 |
| 21 | -3069. | -37.22 | 8.59 | -3.25 | 3.76 | .66 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 7

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | .6210 | .5120 | 4.0690 | .6470 | .5320 | 4.6830 |
| 11 | .5290 | .4020 | 3.5480 | .5220 | .3960 | 4.0160 |
| 12 | .5770 | .4180 | 3.5640 | .5770 | .4170 | 4.1220 |
| 13 | .6180 | .5140 | 3.9390 | .6670 | .5510 | 4.7740 |
| 16 | .6040 | .4810 | 3.9390 | .5990 | .4760 | 4.4120 |
| 20 | .5830 | .4540 | 3.7040 | .6160 | .4790 | 4.4270 |
| 21 | .5730 | .4480 | 3.6740 | .5480 | .4260 | 4.1670 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 7

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | 64.59 | 19.44 | 2.38 | 4.23 | 1.20 |
| 11 | 56.02 | 11.26 | 2.65 | 4.18 | 1.32 |
| 12 | 51.60 | 8.81 | 2.21 | 3.76 | 1.47 |
| 13 | 54.65 | 18.96 | -3.64 | 4.22 | 1.61 |
| 15 | 74.71 | 25.99 | 1.68 | 3.94 | -4.18 |
| 20 | 61.01 | 22.27 | 2.22 | 4.21 | 1.04 |
| 21 | -38.92 | 9.03 | -3.68 | 4.27 | .65 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 8

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 9 | 26.50 | 63.70 | 26.64 | 64.04 |
| 11 | 29.10 | 65.90 | 29.04 | 65.77 |
| 12 | 26.50 | 64.50 | 26.50 | 64.50 |
| 13 | 27.00 | 64.90 | 27.26 | 65.53 |
| 16 | 27.50 | 64.80 | 27.47 | 64.74 |
| 20 | 29.40 | 65.80 | 29.60 | 66.25 |
| 21 | 25.00 | -63.50 | 24.87 | -63.17 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 8

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 9 | 1800. | .8900 | .9270 | 1161. | 1.020 | 3102. |
| 11 | 2000. | .8520 | .8400 | 1149. | 1.020 | 3654. |
| 12 | 1700. | .9370 | .8330 | 1219. | 1.016 | 3245. |
| 13 | 1750. | .9050 | .8140 | 1188. | -1.040 | 3552. |
| 16 | 1900. | .9000 | .8890 | 1170. | 1.020 | 3317. |
| 20 | 2000. | .9060 | .8460 | 1147. | 1.015 | 3803. |
| 21 | -1600. | .8710 | .8560 | 1208. | -1.010 | -2839. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1500 HOUR TEST SERIES •

MODE 8

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 9 | 1796. | .9000 | -.9370 | 1174. | 3112. |
| 11 | 2003. | .8480 | .8370 | 1144. | 3651. |
| 12 | 1703. | .9370 | .8330 | 1219. | 3250. |
| 13 | 1743. | .9230 | .8300 | 1212. | 3574. |
| 16 | 1904. | .8980 | .8880 | 1168. | 3321. |
| 20 | 1988. | .9190 | .8570 | 1163. | 3806. |
| 21 | -1614. | .8620 | .8470 | 1195. | -2850. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1500 HOUR TEST SERIES *

MODE 8

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 9 | 1.714 | 872.1 | 216.4 | 9.6 | 15.3 |
| 11 | 1.677 | 644.7 | 133.9 | 9.8 | 16.1 |
| 12 | 1.874 | 651.9 | -84.2 | 9.2 | 15.5 |
| 13 | 1.771 | 736.8 | 182.2 | 13.4 | 15.8 |
| 16 | 1.729 | 890.5 | 232.9 | 6.8 | 15.2 |
| 20 | 1.766 | 752.1 | 189.7 | 8.7 | 16.1 |
| 21 | 1.743 | -521.0 | 93.2 | -15.2 | 17.9 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 8

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 9 | 2901. | 93.91 | 40.03 | 1.71 | 2.71 | 2.01 |
| 11 | 2966. | 72.58 | 26.87 | 1.81 | 2.97 | 1.96 |
| 12 | -3011. | 66.66 | -14.79 | 1.54 | 2.61 | 2.21 |
| 13 | 2947. | 78.05 | 33.16 | 2.34 | 2.75 | 2.08 |
| 16 | 2894. | 94.86 | 42.62 | 1.19 | 2.67 | 1.96 |
| 20 | 2934. | 79.54 | 34.46 | 1.51 | 2.81 | -3.85 |
| 21 | -3013. | -57.32 | 17.61 | -2.74 | 3.23 | .13 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1500 HOUR TEST SERIES *

MODE 8

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 9 | .3890 | .2250 | 2.6520 | .4040 | .2330 | 3.0420 |
| 11 | .4370 | .2850 | 2.9780 | .4310 | .2810 | 3.3720 |
| 12 | .4300 | .2450 | 2.7030 | .4300 | .2450 | 3.1270 |
| 13 | .4210 | .2560 | 2.7560 | .4530 | .2740 | 3.3250 |
| 16 | .4250 | .2540 | 2.8300 | .4220 | .2510 | 3.1710 |
| 20 | .4470 | .2800 | 2.9070 | .4720 | .2950 | 3.4470 |
| 21 | .3960 | .2340 | 2.5850 | .3800 | .2230 | 2.9390 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1500 HOUR TEST SERIES •

MODE 8

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO FI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 9 | 90.32 | 38.65 | 2.10 | 3.34 | 2.01 |
| 11 | 73.59 | 27.25 | 2.20 | 3.62 | 1.72 |
| 12 | 66.71 | -14.84 | 1.92 | 3.24 | 2.21 |
| 13 | 72.58 | 31.06 | 3.03 | 3.57 | 1.61 |
| 16 | 95.63 | 43.05 | 1.43 | 3.21 | 1.32 |
| 20 | 75.36 | 32.70 | 1.93 | 3.59 | -2.93 |
| 21 | -59.81 | 18.47 | -3.12 | 3.67 | .13 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1800 HOUR TEST SERIES •

| UNIT | TSO HR | TSB HR | AMB TEMP DEG R | AMB PRESS IN HG | AMB HUMID LB H2O/AIR |
|---|---|---|---|---|---|
| 6 | 16031. | 1791. | 517.5 | 29.91 | .006920 |
| 7 | 14185. | 1791. | 517.7 | 29.91 | .007400 |
| 9 | 15506. | 1821. | 517.2 | 29.96 | .007070 |
| 11 | 15874. | 1816. | 511.7 | 29.95 | .006270 |
| 13 | 13958. | 1833. | 535.2 | 29.99 | .008730 |
| 16 | 14451. | 1914. | 520.2 | 29.92 | .008510 |
| 24 | 14540. | 1737. | 513.7 | 30.10 | .007720 |

## JT9D-3A • 1800 HOUR TEST SERIES •

MODE 1

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 27.50 | 64.00 | 27.53 | 64.08 |
| 7 | 28.50 | 65.00 | 28.53 | 65.06 |
| 9 | -31.00 | -66.50 | -31.04 | 66.60 |
| 11 | 29.50 | 65.00 | 29.70 | 65.44 |
| 13 | 27.00 | 65.50 | 26.58 | 64.48 |
| 16 | 28.50 | 64.00 | 28.46 | 63.91 |
| 24 | -25.30 | -62.20 | -25.42 | -62.50 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1800 HOUR TEST SERIES *

MODE 1

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 1900. | .9300 | .9530 | 1158. | 1.020 | 3124. |
| 7 | 1950. | .9540 | .9120 | 1205. | 1.020 | 3422. |
| 9 | -2100. | .9190 | .8390 | 1160. | 1.020 | -3914. |
| 11 | 2000. | .8910 | .9090 | 1142. | 1.015 | 3540. |
| 13 | 1900. | .9500 | .8060 | -1223. | 1.020 | 3237. |
| 16 | 1950. | .9120 | .9800 | 1163. | 1.018 | 3072. |
| 24 | -1600. | .8530 | .9480 | 1133. | 1.015 | -2635. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 1

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 1897. | .9320 | .9550 | 1161. | 3123. |
| 7 | 1947. | .9560 | .9140 | 1207. | 3420. |
| 9 | -2100. | .9220 | .8420 | 1163. | -3919. |
| 11 | 1988. | .9030 | .9220 | 1157. | 3544. |
| 13 | 1833. | .9210 | -.7810 | 1185. | 3245. |
| 16 | 1953. | .8100 | .9780 | 1160. | 3072. |
| 24 | -1602. | .8620 | .9570 | 1144. | -2651. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 1

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6 | 1.796 | 866.5 | 223.0 | 13.8 | 15.5 |
| 7 | 1.845 | 823.5 | 177.1 | 10.9 | 16.7 |
| 9 | 1.793 | 808.7 | 179.2 | 7.8 | 15.8 |
| 11 | 1.740 | 722.2 | 183.1 | 9.5 | 16.5 |
| 13 | 1.882 | 672.8 | 148.1 | 8.9 | 16.6 |
| 16 | 1.550 | 834.4 | 222.3 | 8.4 | -11.2 |
| 24 | 1.673 | 591.6 | 185.6 | 11.2 | 17.0 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1800 HOUR TEST SERIES *

MODE 1

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 2909. | 89.35 | 39.50 | 2.35 | 2.63 | 2.65 |
| 7 | 2944. | 82.73 | 30.56 | 1.79 | 2.76 | 1.96 |
| 9 | 2938. | 84.34 | 32.11 | 1.33 | 2.71 | 2.60 |
| 11 | 2943. | 77.74 | 33.86 | 1.67 | 2.91 | 1.84 |
| 13 | 2981. | 67.81 | 25.65 | 1.47 | 2.74 | 2.49 |
| 16 | 2877. | 98.57 | 45.12 | 1.63 | -2.18 | 2.63 |
| 24 | 2953. | 66.48 | 35.82 | 2.07 | 3.13 | 1.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 1

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | .4120 | .2310 | 2.6500 | .4160 | .2340 | 3.0490 |
| 7 | .4490 | .2580 | 2.7990 | .4530 | .2600 | 3.2330 |
| 9 | .4780 | -.3040 | -3.0620 | .4830 | -.3060 | -3.5380 |
| 11 | .4200 | .2570 | 2.7950 | .4430 | .2710 | 3.3070 |
| 13 | -.4810 | .2780 | 2.9730 | .4230 | .2440 | 3.1240 |
| 16 | .3780 | .2340 | 2.6020 | .3740 | .2310 | 3.0270 |
| 24 | .3590 | -.2100 | -2.3970 | .3710 | .2150 | -2.8640 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 1

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO ET LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | 88.44 | 39.11 | 2.70 | 3.03 | 2.12 |
| 7 | 82.03 | 30.31 | 2.08 | 3.20 | 1.96 |
| 9 | 83.41 | 31.82 | 1.65 | 3.36 | 2.60 |
| 11 | 73.75 | 32.16 | 2.13 | 3.70 | 1.32 |
| 13 | 77.03 | 29.16 | 1.66 | 3.09 | 2.49 |
| 16 | 99.59 | 45.63 | 1.89 | -2.54 | 2.01 |
| 24 | 64.38 | 34.90 | 2.47 | 3.74 | 1.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 2

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 32.00 | 69.00 | 32.04 | 69.08 |
| 7 | 32.00 | 69.00 | 32.03 | 69.07 |
| 9 | 36.00 | -70.50 | 36.05 | -70.60 |
| 11 | 34.00 | 69.00 | 34.23 | 69.47 |
| 13 | -30.50 | 69.30 | -30.03 | -68.22 |
| 16 | 33.50 | 69.40 | 33.45 | 69.30 |
| 24 | 32.50 | 69.20 | 32.66 | 69.54 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1800 HOUR TEST SERIES •

MODE 2

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 2250. | .9660 | .7730 | 1170. | 1.030 | 4781. |
| 7 | 2300. | .9640 | .8050 | 1212. | 1.025 | 4775. |
| 9 | 2500. | .9190 | .8340 | 1179. | -1.035 | -5310. |
| 11 | 2400. | .8910 | .8160 | 1149. | 1.020 | 4910. |
| 13 | 2050. | .9400 | .7180 | -1235. | 1.030 | -4468. |
| 16 | 2320. | .8230 | .7950 | 1179. | 1.025 | 4855. |
| 24 | 2100. | .8810 | .7140 | 1169. | 1.025 | 4908. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1800 HOUR TEST SERIES *

MODE 2

| UNIT | CORR FU FL LBM/HR | COR C9 F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 2247. | .9680 | .7750 | 1173. | 4779. |
| 7 | 2297. | .9660 | .8060 | 1214. | 4773. |
| 9 | 2500. | .9220 | .8370 | 1183. | -5317. |
| 11 | 2386. | .9040 | .8280 | 1164. | 4915. |
| 13 | 2087. | .9110 | -.6960 | 1197. | -4478. |
| 16 | 2323. | .8210 | .7920 | 1176. | 4855. |
| 24 | 2102. | .8900 | .7210 | 1180. | 4938. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 2

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6 | 1.923 | 658.2 | 125.0 | 16.8 | 19.1 |
| 7 | 1.921 | 667.9 | 116.0 | 12.7 | 19.7 |
| 9 | 1.844 | 604.4 | 80.8 | 8.8 | 19.6 |
| 11 | 1.784 | 565.3 | 97.5 | 10.6 | 19.4 |
| 13 | 1.896 | 545.9 | 71.9 | 10.9 | 19.3 |
| 16 | 1.634 | 638.7 | 88.8 | 9.6 | -14.6 |
| 24 | 1.786 | 400.7 | 68.8 | 12.6 | 22.0 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1800 HOUR TEST SERIES •

MODE 2

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 2997. | 65.28 | 21.30 | 2.74 | 3.11 | 1.06 |
| 7 | 3000. | 66.36 | 19.80 | 2.07 | 3.21 | 2.09 |
| 9 | 3020. | 62.99 | 14.47 | 1.50 | 3.36 | 2.58 |
| 11 | 3013. | 60.77 | 18.01 | 1.87 | 3.43 | 1.57 |
| 13 | 3036. | 55.63 | 12.59 | 1.83 | 3.24 | 2.34 |
| 16 | 2990. | 74.40 | 17.77 | 1.83 | -2.80 | 2.89 |
| 24 | 3052. | 43.58 | 12.85 | 2.26 | 3.93 | 1.70 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1800 HOUR TEST SERIES •

MODE 2

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | .6200 | .4520 | 3.7480 | .6270 | .4560 | 4.3150 |
| 7 | .6190 | .4510 | 3.7160 | .6250 | .4550 | 4.3090 |
| 9 | -.6890 | -.5870 | -4.2930 | .6970 | -.5920 | -4.9640 |
| 11 | .5810 | .4620 | 3.7670 | .6140 | .4880 | 4.4690 |
| 13 | .6310 | .4560 | 3.8600 | .5530 | .3990 | 4.0330 |
| 16 | .5670 | .4790 | 3.7830 | .5610 | .4730 | 4.3980 |
| 24 | .5890 | .4790 | 3.7520 | .6100 | .4930 | 4.4960 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 2

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | 64.56 | 21.08 | 3.15 | 3.58 | .92 |
| 7 | 65.77 | 19.64 | 2.39 | 3.72 | 1.99 |
| 9 | 62.25 | 14.33 | 1.96 | 4.17 | 2.51 |
| 11 | 57.50 | 17.07 | 2.39 | 4.36 | 1.57 |
| 13 | 63.47 | 14.38 | 2.05 | 3.63 | 2.25 |
| 16 | 75.22 | 17.99 | 2.13 | -3.25 | 1.33 |
| 24 | 42.06 | 12.48 | 2.71 | 4.71 | 1.46 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1800 HOUR TEST SERIES *

MODE 3

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 89.00 | 94.50 | 89.11 | 94.61 |
| 7 | 89.00 | 94.00 | 89.09 | 94.09 |
| 9 | 89.70 | 94.00 | 89.83 | 94.14 |
| 11 | 89.50 | 94.40 | 90.11 | 95.04 |
| 13 | 90.50 | -97.00 | 89.09 | 95.49 |
| 16 | 90.50 | 94.60 | 90.37 | 94.46 |
| 24 | -87.50 | 93.50 | -87.92 | 93.95 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 3

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 15600. | 1.9200 | 1.8920 | 1858. | 1.400 | 40914. |
| 7 | 15700. | 1.9390 | 1.9110 | 1871. | 1.400 | 40914. |
| 9 | 16000. | 1.8460 | 1.9490 | 1878. | 1.400 | 40845. |
| 11 | 15800. | 1.8590 | 1.9210 | 1871. | 1.400 | 40859. |
| 13 | 15750. | 1.9130 | 1.9500 | -1944. | 1.400 | 40805. |
| 16 | 16150. | 1.9440 | 1.9870 | 1910. | 1.400 | 40900. |
| 24 | -14800. | 1.8340 | -1.7680 | 1831. | 1.400 | 40655. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1800 HOUR TEST SERIES *

MODE 3

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 15576. | 1.9240 | 1.8960 | 1862. | 40900. |
| 7 | 15680. | 1.9430 | 1.9140 | 1874. | 40900. |
| 9 | 15998. | 1.8510 | 1.9540 | 1883. | 40900. |
| 11 | 15709. | 1.8840 | 1.9470 | 1896. | 40900. |
| 13 | 16036. | 1.8540 | 1.8900 | 1884. | 40900. |
| 16 | 16173. | 1.9390 | 1.9810 | 1905. | 40900. |
| 24 | -14817. | 1.8520 | -1.7860 | 1849. | 40900. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 3

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6 | 4.069 | 9.8 | 3.5 | 271.6 | 275.3 |
| 7 | 4.110 | 11.9 | 4.1 | 265.9 | 281.5 |
| 9 | 3.911 | 8.7 | 2.2 | 286.5 | 276.9 |
| 11 | 3.938 | 8.7 | 3.4 | 289.9 | 314.9 |
| 13 | 4.055 | 9.7 | 2.8 | -381.6 | -370.8 |
| 16 | 4.119 | 12.9 | 5.3 | 283.1 | 279.6 |
| 24 | 3.883 | 12.1 | 2.2 | 313.2 | 321.6 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1. HOUR TEST SERIES *

MODE 3

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 3157. | .49 | .30 | 22.03 | 22.33 | 19.33 |
| 7 | 3156. | .58 | .34 | 21.34 | 22.60 | 24.34 |
| 9 | 3157. | .45 | .20 | 24.18 | 24.18 | 19.35 |
| 11 | 3157. | .45 | .30 | 24.29 | 26.39 | 22.22 |
| 13 | 3157. | .48 | .24 | -31.06 | -31.06 | 12.32 |
| 16 | 3154. | .63 | .44 | 22.66 | 22.66 | 15.58 |
| 24 | 3154. | .63 | .19 | 26.60 | 27.31 | 5.26 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 3

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | 110.0550 | 86.8680 | 79.4780 | 114.0420 | 88.2320 | 91.9940 |
| 7 | 106.4740 | 77.2350 | 72.9950 | 109.6590 | 78.2040 | 85.0080 |
| 9 | 80.5040 | 77.8250 | 73.5870 | 83.5840 | 79.0330 | 85.5950 |
| 11 | 91.5030 | 89.5590 | 90.2190 | 108.9060 | 97.2870 | 98.1190 |
| 13 | -162.1930 | -132.1020 | -108.3700 | 107.6080 | 107.6340 | 104.9360 |
| 14 | 120.2760 | 86.7780 | 77.8610 | 114.1260 | 85.2370 | 89.9320 |
| 24 | 72.1840 | 72.2740 | 68.0650 | 81.0290 | 75.7530 | 83.2640 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 3

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | .47 | .29 | 25.50 | 25.84 | 15.83 |
| 7 | .56 | .34 | 24.86 | 26.32 | 17.74 |
| 9 | .43 | .20 | 28.13 | 28.13 | 14.39 |
| 11 | .37 | .27 | 29.71 | 32.28 | 18.68 |
| 13 | .73 | .29 | 30.07 | 30.07 | 11.29 |
| 16 | .65 | .45 | 26.18 | 26.18 | 11.42 |
| 24 | .56 | .18 | 32.54 | 33.41 | 5.26 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 4

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 83.00 | 92.50 | 83.10 | 92.61 |
| 7 | 84.00 | 92.00 | 84.08 | 92.09 |
| 9 | 85.00 | 91.50 | 85.12 | 91.63 |
| 11 | 84.00 | 91.50 | 84.57 | 92.12 |
| 13 | 84.00 | -94.50 | 82.70 | 93.03 |
| 16 | 85.00 | 92.60 | 84.88 | 92.47 |
| 24 | 83.70 | 92.20 | 84.11 | 92.65 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1800 HOUR TEST SERIES •

MODE 4

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 12750. | 1.6880 | 1.7160 | 1748. | 1.310 | 34465. |
| 7 | 12800. | -1.7390 | 1.7340 | 1772. | 1.310 | 34465. |
| 9 | 12900. | 1.6810 | 1.7460 | 1773. | 1.310 | 34407. |
| 11 | 12800. | 1.6740 | 1.7280 | 1764. | 1.310 | 34419. |
| 13 | 12600. | 1.6860 | 1.7270 | -1824. | 1.310 | 34373. |
| 16 | 13200. | 1.6820 | 1.8020 | 1799. | 1.310 | 34453. |
| 24 | 12350. | 1.6290 | 1.6560 | 1734. | 1.305 | 33856. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1800 HOUR TEST SERIES •

MODE 4

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 12730. | 1.6920 | 1.7200 | 1752. | 34453. |
| 7 | 12783. | 1.7420 | 1.7370 | 1775. | 34453. |
| 9 | 12899. | 1.6860 | 1.7510 | 1778. | 34453. |
| 11 | 12726. | 1.6970 | 1.7520 | 1788. | 34453. |
| 13 | 12829. | 1.6340 | 1.6740 | 1767. | 34453. |
| 16 | 13219. | 1.6770 | 1.7970 | 1793. | 34453. |
| 24 | 12364. | 1.6450 | 1.6730 | 1751. | 34060. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 1800 HOUR TEST SERIES *

MODE 4

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6 | 3.571 | 10.1 | 1.7 | 175.6 | 169.9 |
| 7 | -3.679 | 12.1 | 2.7 | 176.0 | 183.4 |
| 9 | 3.555 | 9.2 | 1.6 | 191.8 | 183.3 |
| 11 | 3.540 | 9.1 | 2.0 | 192.8 | 187.8 |
| 13 | 3.545 | 9.4 | 2.9 | 237.2 | 228.7 |
| 16 | 3.553 | 14.5 | 4.7 | 180.2 | 181.7 |
| 24 | 3.440 | 11.9 | 1.5 | 214.4 | 224.2 |

NOTE-- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 4

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 3157. | .57 | .17 | 16.23 | 16.23 | 13.91 |
| 7 | 3156. | .66 | .25 | 15.78 | 16.45 | -21.05 |
| 9 | 3157. | .52 | .15 | 17.80 | 17.80 | 14.29 |
| 11 | 3157. | .51 | .19 | 17.98 | 17.98 | 18.17 |
| 13 | 3157. | .53 | .28 | 21.96 | 21.96 | 7.63 |
| 16 | 3153. | .82 | .46 | 16.72 | 16.86 | 13.07 |
| 24 | 3154. | .69 | .15 | 20.55 | 21.49 | 4.94 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 1800 HOUR TEST SERIES •

MODE 4

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | 40.2020 | 54.2150 | 58.6190 | 41.3290 | 55.0360 | 67.8110 |
| 7 | 41.8660 | 48.1910 | 53.9530 | 42.8590 | 48.7740 | 62.8030 |
| 9 | 33.8320 | 44.0040 | 51.0570 | 34.8840 | 44.6530 | 59.3380 |
| 11 | 33.4170 | 45.4050 | 51.8130 | 38.4270 | 49.1030 | 63.0750 |
| 13 | -53.3470 | -74.0960 | -74.0020 | 38.6030 | 60.9140 | 72.3410 |
| 16 | 39.8560 | 54.0470 | 57.3660 | 38.7840 | 53.1220 | 66.3060 |
| 24 | 33.7340 | 52.9720 | 55.8270 | 37.0390 | 55.5190 | 68.1880 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 4

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | .55 | .17 | 18.78 | 18.78 | 12.94 |
| 7 | .64 | .25 | 18.37 | 19.15 | -17.97 |
| 9 | .51 | .15 | 22.36 | 22.36 | 13.64 |
| 11 | .45 | .18 | 21.89 | 21.89 | 15.83 |
| 13 | .73 | .34 | 21.47 | 21.47 | 7.63 |
| 16 | .84 | .47 | 20.89 | 21.06 | 10.82 |
| 24 | .63 | .15 | 25.10 | 26.25 | 4.94 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 5

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 76.00 | -91.00 | 76.09 | -91.11 |
| 7 | 77.00 | 89.00 | 77.07 | 89.09 |
| 9 | 77.00 | 89.00 | 77.11 | 89.13 |
| 11 | 77.00 | 88.70 | -77.52 | 89.30 |
| 13 | 74.00 | 90.30 | -72.85 | 88.90 |
| 16 | 76.40 | -91.50 | 76.29 | -91.37 |
| 24 | 75.50 | 89.50 | 75.87 | 89.93 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

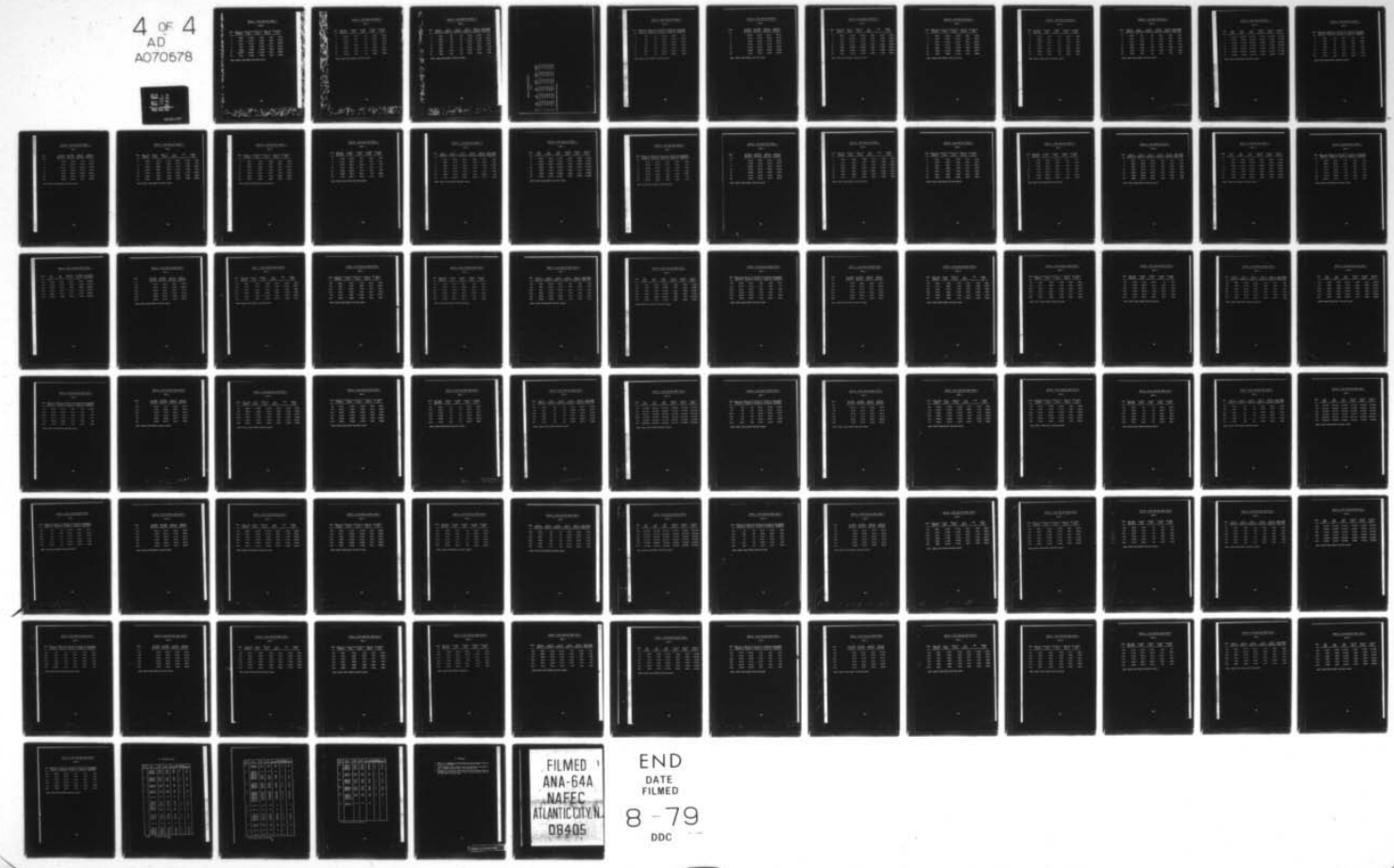
MODE 5

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 9900. | 1.4890 | 1.5340 | 1624. | 1.220 | 27382. |
| 7 | 10100. | -1.5310 | 1.5910 | 1651. | 1.220 | 27382. |
| 9 | 9700. | 1.4570 | 1.5390 | 1631. | 1.210 | 26551. |
| 11 | 10000. | 1.4720 | 1.5900 | 1635. | 1.210 | 26560. |
| 13 | 8950. | 1.4270 | 1.4960 | 1638. | 1.190 | 24662. |
| 15 | -10600. | -1.5240 | -1.7310 | -1716. | 1.210 | 26587. |
| 24 | 9400. | 1.3970 | 1.4640 | 1602. | 1.212 | 26584. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

AD-A070 578 NORTHERN RESEARCH AND ENGINEERING CORP CAMBRIDGE MASS F/G 13/2
TIME DEGRADATION FACTORS FOR TURBINE ENGINE EXHAUST EMISSIONS, --ETC(U)
MAY 78 DOT-FA74NA-1100
UNCLASSIFIED NREC-1238-11 FAA-RD-78-56-6 NL

4 OF 4
AD
A070578



FILMED
ANA-64A
NAFEC
ATLANTIC CITY N.J.
08405

END
DATE FILMED
8-79
DDC

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 5

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 9885. | 1.4930 | 1.5400 | 1628. | 27373. |
| 7 | 10087. | -1.5340 | 1.5840 | 1654. | 27373. |
| 9 | 9699. | 1.4610 | 1.5440 | 1636. | 26587. |
| 11 | 9942. | 1.4920 | 1.6120 | -1657. | 26587. |
| 13 | 9113. | 1.3830 | 1.4500 | 1588. | 24720. |
| 16 | -10615. | -1.5190 | -1.7260 | -1711. | 26587. |
| 24 | 9411. | 1.4100 | 1.4780 | 1618. | 26744. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 4 | 3.143 | 13.8 | 1.2 | 114.2 | 104.0 |
| 7 | -3.233 | 14.3 | 1.9 | 112.0 | 114.9 |
| 9 | 3.073 | 14.1 | 1.3 | 111.1 | 107.5 |
| 11 | 3.107 | 11.9 | 1.6 | 117.4 | 115.7 |
| 13 | 3.008 | 14.9 | 2.9 | 117.0 | 114.1 |
| 16 | -3.213 | 17.5 | 4.3 | 126.3 | 128.4 |
| 24 | 2.942 | 16.5 | 1.2 | 125.8 | 132.6 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 5

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 3156. | .88 | .13 | 11.99 | 11.99 | 8.27 |
| 7 | 3156. | .89 | .20 | 11.43 | 11.72 | -16.47 |
| 9 | 3156. | .92 | .14 | 11.93 | 11.93 | 8.65 |
| 11 | 3156. | .77 | .17 | 12.47 | 12.47 | 11.84 |
| 13 | 3156. | .99 | .34 | 12.83 | 12.83 | 6.15 |
| 16 | 3153. | 1.09 | .46 | 12.96 | 13.17 | 11.84 |
| 24 | 3154. | 1.12 | .14 | 14.09 | 14.86 | 2.88 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 5

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | -20.6310 | -39.7180 | -49.0670 | -21.1070 | -40.3050 | -55.5930 |
| 7 | 17.0270 | 26.5770 | 37.0660 | 17.3440 | 26.8940 | 43.1210 |
| 9 | 14.7270 | 26.7390 | 37.3270 | 15.0880 | 27.1150 | 43.3510 |
| 11 | 14.6740 | 26.0510 | 36.5240 | 16.4350 | 28.0740 | 44.2970 |
| 13 | 16.2170 | 31.0990 | 42.5190 | 12.6470 | 25.8920 | 42.1290 |
| 16 | -23.6540 | -43.1280 | -49.6510 | -23.0970 | -42.4010 | -57.4090 |
| 24 | 14.2010 | 30.4570 | 39.3350 | 15.2850 | 31.8410 | 47.9160 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 5

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRF CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | .86 | .13 | 13.86 | 13.86 | 8.27 |
| 7 | .87 | .20 | 13.29 | 13.64 | -13.36 |
| 9 | .90 | .14 | 14.97 | 14.97 | 8.65 |
| 11 | .69 | .15 | 15.12 | 15.12 | 10.64 |
| 13 | 1.27 | .41 | 12.71 | 12.71 | 6.15 |
| 16 | 1.12 | .47 | 16.19 | 16.46 | 11.58 |
| 24 | 1.04 | .13 | -17.17 | -18.10 | 2.88 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 6

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 56.00 | 85.00 | 56.07 | 85.10 |
| 7 | 56.50 | 84.00 | 56.55 | 84.08 |
| 9 | 56.00 | 82.50 | 56.08 | 82.62 |
| 11 | 57.00 | 82.20 | 57.39 | 82.76 |
| 13 | 54.50 | 84.60 | 53.65 | 83.29 |
| 16 | 56.50 | 84.30 | 56.42 | 84.18 |
| 24 | 54.70 | 83.10 | 54.97 | 83.50 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 6

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 5200. | 1.1630 | 1.2530 | 1381. | 1.080 | 12244. |
| 7 | 5300. | -1.2190 | 1.2980 | 1426. | 1.080 | 12244. |
| 9 | 5100. | 1.1400 | 1.2300 | 1388. | 1.080 | 12224. |
| 11 | 5300. | 1.1610 | 1.2740 | 1377. | 1.080 | 12228. |
| 13 | 4900. | 1.1540 | 1.1970 | 1428. | 1.080 | 12211. |
| 16 | 5280. | 1.0790 | 1.2860 | 1410. | 1.080 | 12240. |
| 24 | 4800. | 1.0730 | 1.1230 | 1358. | 1.082 | 12441. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 6

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 5192. | 1.1660 | 1.2560 | 1384. | 12240. |
| 7 | 5293. | 1.2210 | 1.3010 | 1429. | 12240. |
| 9 | 5099. | 1.1430 | 1.2330 | 1392. | 12240. |
| 11 | 5269. | 1.1770 | 1.2920 | 1396. | 12240. |
| 13 | 4989. | 1.1190 | 1.1600 | 1384. | 12240. |
| 16 | 5288. | 1.0760 | 1.2820 | 1406. | 12240. |
| 24 | 4806. | 1.0840 | 1.1330 | 1371. | 12516. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 6

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6 | 2.437 | 94.3 | 3.5 | 42.5 | 47.8 |
| 7 | -2.559 | 77.5 | 2.6 | 40.9 | 46.9 |
| 9 | 2.387 | 99.8 | 4.6 | 37.6 | 45.5 |
| 11 | 2.435 | 87.1 | 3.3 | 42.1 | 49.2 |
| 13 | 2.419 | 84.5 | 5.5 | 42.9 | 50.6 |
| 16 | 2.254 | 104.6 | 6.9 | 35.6 | -42.6 |
| 24 | 2.246 | 74.9 | 4.2 | 46.0 | 53.2 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 6

| UNIT | CO2 EI LB/KLB FU | CO E LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 3145. | 7.74 | .49 | 5.73 | 6.45 | 4.20 |
| 7 | 3148. | 6.07 | .34 | 5.26 | 6.03 | -7.48 |
| 9 | 3143. | 8.36 | .67 | 5.17 | 6.27 | 2.20 |
| 11 | 3148. | 5.52 | .47 | 5.69 | 6.65 | 5.13 |
| 13 | 3145. | 6.99 | .78 | 5.83 | 6.88 | 1.83 |
| 16 | 3138. | 9.27 | 1.05 | 5.19 | 6.21 | 2.63 |
| 24 | 3144. | 6.67 | .64 | 6.73 | 7.78 | 1.32 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 6

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | 5.3720 | 11.9840 | 22.9010 | 5.4600 | 12.1450 | 26.4450 |
| 7 | 5.1370 | 9.8130 | 20.1270 | 5.2070 | 9.9190 | 23.3940 |
| 9 | 3.8210 | 7.3120 | 16.9710 | 3.8860 | 7.4020 | 19.6750 |
| 11 | 3.8180 | 7.1250 | 16.6340 | 4.1420 | 7.6190 | 20.0090 |
| 13 | 4.9380 | 10.0200 | 21.1440 | 4.0860 | 8.4740 | 21.3010 |
| 16 | 4.3700 | 10.2620 | 20.4250 | 4.3000 | 10.1090 | 23.6620 |
| 24 | 3.8040 | 8.5120 | 18.0470 | 4.0060 | 8.8500 | 21.8570 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 6

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRF CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | 7.62 | .49 | 6.62 | 7.44 | 4.20 |
| 7 | 5.99 | .34 | 6.11 | -7.00 | -6.66 |
| 9 | 8.22 | .66 | 6.44 | 7.80 | 2.20 |
| 11 | 5.09 | .44 | 7.35 | 8.59 | 4.21 |
| 13 | 8.45 | .92 | 6.31 | 7.43 | 1.59 |
| 16 | 9.42 | 1.07 | 6.01 | 7.19 | 2.63 |
| 24 | 6.34 | .62 | 8.16 | 9.42 | 1.32 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 7

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 31.00 | 70.00 | 31.04 | 70.09 |
| 7 | 31.00 | 69.00 | 31.03 | 69.07 |
| 9 | -35.00 | -70.50 | -35.05 | -70.60 |
| 11 | 32.50 | 69.00 | 32.72 | 69.47 |
| 13 | 29.00 | 68.80 | 28.55 | -67.73 |
| 16 | 31.00 | 68.50 | 30.96 | 68.40 |
| 24 | 32.60 | -70.30 | 32.76 | -70.64 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 7

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | FPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 2200. | .9170 | .7470 | 1185. | -1.030 | 5132. |
| 7 | 2100. | .9370 | .7370 | 1221. | 1.020 | 4775. |
| 9 | 2350. | .8860 | .7860 | 1187. | 1.025 | -5310. |
| 11 | 2200. | .8580 | .7500 | 1154. | 1.020 | 4910. |
| 13 | 2000. | .9460 | .7140 | -1260. | 1.020 | -4296. |
| 16 | 2100. | .8100 | .7330 | 1187. | 1.020 | 4540. |
| 24 | 2050. | .8430 | .6830 | 1176. | 1.025 | -5299. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 7

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 2197. | .9190 | .7490 | 1189. | 5130. |
| 7 | 2097. | .9340 | .7380 | 1223. | 4773. |
| 9 | -2350. | .8880 | .7890 | 1190. | -5317. |
| 11 | 2187. | .8700 | .7600 | 1170. | 4915. |
| 13 | 2036. | .9170 | .6920 | 1221. | -4306. |
| 14 | 2103. | .8080 | .7310 | 1183. | 4540. |
| 24 | 2052. | .8520 | .6890 | 1187. | -5331. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6 | 1.838 | 618.9 | 79.7 | 15.2 | 19.3 |
| 7 | 1.863 | 688.0 | 114.3 | 10.4 | -16.1 |
| 9 | 1.774 | 589.1 | 84.6 | 9.7 | 19.4 |
| 11 | 1.711 | 574.7 | 103.7 | 10.7 | 17.7 |
| 13 | 1.908 | 552.6 | 77.7 | 10.3 | 18.7 |
| 16 | 1.585 | 578.3 | 144.0 | 9.0 | -13.8 |
| 24 | 1.712 | -360.7 | 64.9 | 13.3 | 20.2 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 7

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 3017. | 64.67 | 14.30 | 2.60 | 3.31 | 1.96 |
| 7 | 2993. | 70.34 | 20.07 | 1.75 | -2.71 | 1.31 |
| 9 | 3015. | 63.72 | 15.73 | 1.72 | 3.44 | -2.97 |
| 11 | 3003. | 64.18 | 19.90 | 1.96 | -.25 | 1.97 |
| 13 | 3033. | 55.93 | 13.50 | 1.71 | 3.11 | 2.85 |
| 16 | 2949. | 80.34 | 29.29 | 1.75 | -2.69 | .65 |
| 24 | 3057. | -40.99 | 12.66 | 2.48 | 3.77 | 1.18 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 7

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | -.6540 | .5370 | 4.1100 | .6610 | .5420 | 4.7320 |
| 7 | .6040 | .4510 | 3.7160 | .6100 | .4550 | 4.3090 |
| 9 | -.6680 | -.5870 | -4.2930 | .6760 | -.5920 | -4.9640 |
| 11 | .5640 | .4620 | 3.7670 | .5950 | .4880 | 4.4690 |
| 13 | .6070 | .4210 | 3.7080 | .5330 | .3603 | 3.8780 |
| 16 | .5190 | .4150 | 3.5180 | .5130 | .4110 | 4.0900 |
| 24 | .6340 | -.5790 | -4.1540 | .6560 | -.5960 | -4.9820 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 7

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | 63.97 | 14.15 | 3.00 | 3.81 | 1.96 |
| 7 | 69.72 | 19.90 | 2.03 | -3.14 | 1.31 |
| 9 | 62.99 | 15.58 | 2.13 | 4.28 | 2.24 |
| 11 | 60.79 | 18.85 | 2.50 | 4.14 | 1.74 |
| 13 | 63.80 | 15.42 | 1.92 | 3.49 | -2.65 |
| 16 | 81.21 | 29.64 | 2.04 | -3.13 | .65 |
| 24 | -39.57 | 12.29 | 2.97 | 4.52 | 1.18 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 8

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6 | 26.00 | 65.00 | 26.03 | 65.08 |
| 7 | 27.50 | 65.00 | 27.53 | 65.06 |
| 9 | -30.00 | -67.00 | 30.04 | -67.10 |
| 11 | 29.00 | 65.40 | 29.20 | 65.85 |
| 13 | 26.50 | 65.50 | 24.09 | 64.48 |
| 16 | 27.40 | 64.30 | 27.36 | 64.21 |
| 24 | 27.60 | 65.40 | 27.73 | 65.72 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 8

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6 | 1800. | .9280 | .9280 | 1169. | 1.020 | 7427. |
| 7 | 1850. | .9350 | .9660 | 1208. | 1.020 | 7422. |
| 9 | 2000. | .9930 | .7710 | 1172. | 1.020 | -4079. |
| 11 | 2000. | .8700 | .8790 | 1149. | -1.010 | 7671. |
| 13 | 1800. | .9540 | .8170 | -1255. | 1.020 | 7237. |
| 16 | 1820. | .8090 | .8910 | 1149. | 1.015 | 7162. |
| 24 | 1680. | .8230 | -.6760 | -978. | 1.020 | 7611. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1800 HOUR TEST SERIES •

MODE 8

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6 | 1797. | .9300 | .8300 | 1171. | 3426. |
| 7 | 1848. | .9360 | .8680 | 1210. | 3420. |
| 9 | 2000. | .8850 | .7730 | 1176. | -4084. |
| 11 | 1988. | .8820 | .8900 | 1164. | 3675. |
| 13 | 1833. | .9250 | .7910 | 1216. | 3245. |
| 16 | 1823. | .8070 | .8890 | 1165. | 3162. |
| 24 | 1682. | .8310 | -.6820 | -987. | 3633. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 1900 HOUR TEST SERIES •

MODE 8

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6 | 1.797 | 846.5 | 213.7 | 12.1 | 15.3 |
| 7 | 1.822 | 853.8 | 175.5 | 9.3 | 14.6 |
| 9 | 1.726 | 761.0 | 163.6 | 8.2 | 15.9 |
| 11 | 1.704 | 695.4 | 167.3 | 9.4 | 15.9 |
| 13 | 1.894 | 659.0 | 144.3 | 9.5 | 16.3 |
| 16 | 1.547 | 829.7 | 212.8 | 7.7 | -11.6 |
| 24 | 1.630 | -526.0 | 139.0 | 10.4 | 16.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 8

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6 | 2917. | 87.43 | 37.92 | 2.06 | 2.60 | 1.70 |
| 7 | 2934. | 87.55 | 30.92 | 1.57 | 2.47 | 2.09 |
| 9 | 2945. | 82.64 | 30.52 | 1.47 | 2.84 | 2.22 |
| 11 | 2951. | 76.63 | 31.67 | 1.69 | 2.88 | 1.57 |
| 13 | 2986. | 66.14 | 24.87 | 1.57 | 2.69 | 2.09 |
| 16 | 2982. | 98.41 | 43.35 | 1.51 | -2.26 | 1.96 |
| 24 | 2983. | -61.27 | 27.82 | 1.98 | 3.12 | 1.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 8

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6 | .4390 | .2580 | 2.8120 | .4430 | .2610 | 3.2760 |
| 7 | .4410 | .2580 | 2.7890 | .4450 | .2600 | 3.2330 |
| 9 | -.4840 | -.3300 | -3.1890 | -.4900 | -.3330 | -3.6850 |
| 11 | .4230 | .2690 | 2.8620 | .4460 | .2830 | 3.3960 |
| 13 | -.4830 | .2730 | 2.9730 | .4250 | .2440 | 3.1240 |
| 16 | .3820 | .2400 | 2.6410 | .3780 | .2370 | 3.0730 |
| 24 | .4100 | .2720 | 2.8100 | .4240 | .2790 | 3.3410 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 1800 HOUR TEST SERIES *

MODE 8

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6 | 86.53 | 37.54 | 2.37 | 2.99 | 1.70 |
| 7 | 86.81 | 30.67 | 1.82 | 2.86 | 2.09 |
| 9 | 81.75 | 30.24 | 1.82 | 3.52 | 2.22 |
| 11 | 72.72 | 30.08 | 2.15 | 3.65 | 1.20 |
| 13 | 75.15 | 28.27 | 1.78 | 3.03 | 1.99 |
| 16 | 99.43 | 43.84 | 1.75 | -2.43 | 1.96 |
| 24 | -59.31 | 27.07 | 2.37 | 3.73 | 1.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

| UNIT | TSO HR | TSR HR | AMB TEMP DEG R | AMB PRESS IN HG | AMB HUMID LB H2O/AIR |
|---|---|---|---|---|---|
| 6-5 | 16402. | 2162. | 514.7 | 30.00 | .006580 |
| 6-6 | 16516. | 2376. | 536.2 | 29.92 | .007370 |
| 11-6 | 16133. | 2075. | 519.7 | 29.80 | .008660 |
| 13-6 | 14196. | 2071. | 513.7 | 29.93 | .006320 |
| 6-7 | 16901. | 2661. | 520.7 | 29.93 | .009090 |
| 13-7 | 14847. | 2722. | 529.2 | 30.04 | .010200 |

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 1

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6-5 | 29.10 | 65.30 | 29.21 | 65.55 |
| 6-6 | 27.50 | 64.30 | 27.05 | -63.24 |
| 11-6 | 28.50 | 64.20 | 28.47 | 64.14 |
| 13-6 | 29.00 | 66.00 | 29.14 | 66.32 |
| 6-7 | 28.00 | -63.00 | 27.95 | -62.88 |
| 13-7 | 27.00 | 64.80 | 26.73 | 64.15 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 1

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 2050. | .9240 | .9050 | 1143. | 1.024 | 3570. |
| 6-6 | 1850. | .8750 | .9100 | 1179. | -1.025 | -2873. |
| 11-6 | 1850. | .9210 | .9180 | 1167. | 1.015 | 3154. |
| 13-6 | 1950. | .8950 | .9250 | 1188. | 1.020 | 3828. |
| 6-7 | 1940. | .8970 | -1.0710 | 1151. | 1.020 | -2763. |
| 13-7 | 1800. | .9690 | -.7770 | -1003. | 1.020 | 3134. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 1

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT5 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 2048. | .9310 | .9120 | 1152. | 3580. |
| 6-6 | 1881. | .8470 | .8810 | 1141. | -2873. |
| 11-6 | 1844. | .9190 | .9160 | 1144. | 3141. |
| 13-6 | 1941. | .9040 | .8330 | 1200. | 3829. |
| 6-7 | 1944. | .8930 | -1.0660 | 1146. | -2764. |
| 13-7 | 1825. | .9500 | -.7620 | -983. | 3146. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 1

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 1.785 | 823.8 | 225.6 | 6.8 | 15.3 |
| 6-6 | 1.693 | 778.4 | 198.9 | 13.3 | 15.1 |
| 11-6 | 1.793 | 778.5 | 198.6 | 16.2 | 15.7 |
| 13-6 | 1.757 | 674.3 | 170.4 | -17.9 | 16.5 |
| 6-7 | 1.717 | 882.7 | 244.6 | 13.3 | 14.2 |
| 13-7 | 1.898 | 743.6 | 195.4 | 9.0 | 14.6 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 1

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 2911. | 85.49 | 40.23 | 1.16 | 2.60 | 3.52 |
| 6-6 | 2915. | 85.27 | 37.42 | 2.38 | 2.72 | 1.69 |
| 11-6 | 2931. | 81.00 | 35.50 | 2.77 | 2.77 | 2.97 |
| 13-6 | 2956. | 72.43 | 31.36 | 3.15 | 3.15 | -5.13 |
| 6-7 | 2884. | 94.38 | 44.93 | 2.33 | 2.49 | 2.23 |
| 13-7 | 2949. | 73.53 | 33.20 | 1.46 | 2.37 | 4.17 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 1

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6-5 | .4430 | .2670 | 2.8590 | .4570 | .2740 | 3.3280 |
| 6-6 | .4270 | .2550 | 2.8920 | .3760 | .2240 | 2.9680 |
| 11-6 | .4150 | .2350 | 2.6090 | .4140 | .2350 | 3.0600 |
| 13-6 | .4500 | .2970 | 2.9800 | .4680 | .2980 | 3.4820 |
| 6-7 | .3910 | .2230 | -2.4800 | .3860 | .2200 | -2.9060 |
| 13-7 | .4620 | .2570 | 2.7200 | .4250 | .2350 | 3.0630 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 1

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | 83.02 | 39.21 | 1.45 | 3.25 | -3.31 |
| 6-6 | 96.77 | 42.62 | 2.41 | 2.98 | 1.31 |
| 11-6 | 81.34 | 35.51 | 3.25 | 3.25 | 1.85 |
| 13-6 | 69.69 | 30.19 | 3.95 | 3.95 | 1.32 |
| 6-7 | 95.77 | 45.63 | 2.73 | 2.91 | 2.23 |
| 13-7 | 79.95 | 36.17 | 1.65 | -2.67 | 2.00 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 2100 HOUR AND ABOVE TESTS •

MODE 2

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6-5 | 33.50 | 69.50 | 33.63 | 69.77 |
| 6-6 | 32.00 | 68.60 | 31.47 | -67.47 |
| 11-4 | 34.50 | 69.30 | 34.47 | 69.23 |
| 13-4 | 32.50 | 69.30 | 32.66 | 69.64 |
| 6-7 | 34.30 | 69.00 | 34.23 | 68.87 |
| 13-7 | 31.00 | 69.30 | 30.69 | 68.31 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 2

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 2400. | .9300 | .8120 | 1141. | 1.030 | 5006. |
| 6-6 | 2100. | .8880 | .7310 | 1185. | 1.025 | -4215. |
| 11-6 | 2300. | .9150 | .7920 | 1178. | 1.023 | 4851. |
| 13-6 | 2200. | .8860 | .7600 | 1196. | 1.020 | 4971. |
| 6-7 | 2400. | .9090 | .8270 | 1178. | 1.030 | 4702. |
| 13-7 | 2100. | .9690 | .7360 | -1228. | 1.023 | 4491. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 2

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT4 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 2397. | .9380 | .8190 | 1170. | 5019. |
| 6-6 | 2135. | .8590 | .7070 | 1144. | -4215. |
| 11-6 | 2293. | .9140 | .7900 | 1175. | 4832. |
| 13-6 | 2190. | .8940 | .7670 | 1207. | 4973. |
| 6-7 | 2405. | .9050 | .8240 | 1173. | 4704. |
| 13-7 | 2139. | .9500 | .7210 | 1204. | 4509. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 2

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 1.845 | 641.8 | 139.2 | 7.7 | 18.5 |
| 6-6 | 1.765 | 606.3 | 107.2 | 16.4 | 18.8 |
| 11-6 | 1.836 | 607.7 | 76.6 | -20.0 | 19.8 |
| 13-6 | 1.776 | 560.8 | 82.8 | -19.5 | 18.8 |
| 6-7 | 1.818 | 610.7 | 86.3 | 18.3 | 19.2 |
| 13-7 | 1.935 | 591.7 | 126.3 | 11.7 | 18.5 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 2

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 2985. | 66.08 | 24.45 | 1.30 | 3.13 | 3.26 |
| 6-6 | 2994. | 65.46 | 19.89 | 2.90 | 3.33 | .65 |
| 11-6 | 3018. | 63.59 | 13.77 | 3.44 | 3.44 | 1.18 |
| 13-6 | 3018. | 60.67 | 15.38 | 3.47 | 3.47 | 2.23 |
| 6-7 | 3012. | 64.38 | 15.63 | 3.17 | 3.32 | 1.30 |
| 13-7 | 3005. | 58.49 | 21.45 | 1.90 | 3.00 | 1.68 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 2

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6-5 | .6320 | .5000 | 3.9410 | .6520 | .5140 | 4.5960 |
| 6-6 | .5650 | .4050 | 3.7480 | -.4940 | -.3540 | -3.7980 |
| 11-6 | .6070 | .4680 | 3.7270 | .6050 | .4680 | 4.3700 |
| 13-6 | .5940 | .4830 | 3.8780 | .6190 | .5020 | 4.5390 |
| 6-7 | .5900 | .4490 | 3.6240 | .5310 | .4410 | 4.2430 |
| 13-7 | .6300 | .4430 | 3.6210 | .5770 | .4050 | 4.0620 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 2

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | 64.06 | 23.79 | 1.63 | 3.92 | -2.66 |
| 6-6 | 74.76 | 22.78 | 3.16 | 3.62 | .39 |
| 11-6 | 63.87 | 13.78 | 4.03 | 4.03 | 1.18 |
| 13-6 | 58.30 | 14.79 | -4.36 | 4.36 | 1.32 |
| 6-7 | 65.39 | 15.89 | 3.71 | 3.89 | .92 |
| 13-7 | 63.83 | 23.45 | 2.13 | -3.37 | 1.32 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 3

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6-5 | 88.50 | 93.30 | 88.84 | 93.66 |
| 6-6 | 91.00 | 95.40 | 89.50 | 93.83 |
| 11-6 | 90.50 | 94.80 | 90.41 | 94.71 |
| 13-6 | 88.50 | 94.80 | 88.93 | 95.26 |
| 6-7 | 89.60 | 95.00 | 89.43 | 94.82 |
| 13-7 | 90.00 | -96.30 | 89.10 | 95.74 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 3

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 15600. | 1.8500 | 1.8740 | 1835. | 1.400 | 40791. |
| 6-6 | 15850. | 1.9060 | 1.9470 | 1905. | 1.400 | 40900. |
| 11-6 | 15850. | 1.8360 | 1.9520 | 1899. | 1.400 | 41065. |
| 13-6 | 15500. | 1.8080 | 1.8880 | 1878. | 1.400 | 40886. |
| 6-7 | 16200. | 1.8440 | 1.9510 | 1865. | -1.409 | -41480. |
| 13-7 | 15800. | 1.9280 | 1.9450 | -1930. | 1.400 | 40737. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 3

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 15581. | 1.8640 | 1.8880 | 1849. | 40900. |
| 6-6 | 16115. | 1.8440 | 1.8830 | 1843. | 40900. |
| 11-6 | 15802. | 1.8320 | 1.9480 | 1896. | 40900. |
| 13-6 | 15430. | 1.8250 | 1.9070 | 1896. | 40900. |
| 6-7 | 16237. | 1.8370 | 1.9430 | 1858. | -41494. |
| 13-7 | 16023. | 1.8900 | 1.9070 | 1892. | 40900. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 3

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOx CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 3.917 | 8.3 | 3.0 | 251.3 | 243.9 |
| 6-6 | 4.032 | 9.6 | 4.3 | 330.2 | 321.1 |
| 11-6 | 3.886 | 8.7 | 3.1 | 291.9 | 277.7 |
| 13-6 | 3.825 | 7.7 | 3.0 | 297.8 | 290.3 |
| 6-7 | 3.903 | 9.3 | 3.4 | 262.7 | 261.8 |
| 13-7 | 4.084 | 16.9 | 6.1 | -360.9 | 355.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 3

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 3154. | .42 | .27 | 21.16 | 21.16 | 21.57 |
| 6-6 | 3150. | .43 | .37 | 26.96 | 26.96 | 20.78 |
| 11-6 | 3154. | .45 | .27 | 24.78 | 24.78 | 19.29 |
| 13-6 | 3155. | .41 | .27 | 25.67 | 25.67 | 22.80 |
| 6-7 | 3154. | .48 | .30 | 22.20 | 22.20 | 23.45 |
| 13-7 | 3153. | .83 | .52 | 29.13 | 29.13 | 14.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 3

| UNIT | ECO X100 | EHC X100 | ENO X100 | STD ECO X100 | STD EHC X100 | STD ENO X100 |
|---|---|---|---|---|---|---|
| 6-5 | 72.3540 | 67.8150 | 67.2110 | 79.5930 | 70.7440 | 79.6500 |
| 6-6 | 117.3320 | 90.4650 | 86.9460 | 77.3440 | 73.5970 | 81.7160 |
| 11-6 | 89.1620 | 90.5920 | 79.9280 | 87.6230 | 90.1620 | 93.3130 |
| 13-6 | 84.0020 | 96.2090 | 84.7140 | 94.7050 | 102.1610 | 101.3530 |
| 6-7 | 94.6250 | 94.7290 | 81.7170 | 90.5030 | 92.4220 | 94.8490 |
| 13-7 | -152.8520 | -118.9870 | -95.9270 | 117.0170 | 104.0050 | 102.5450 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 3

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | .39 | .26 | 25.07 | 25.07 | 16.68 |
| 5-6 | .65 | .46 | 25.34 | 25.34 | 17.45 |
| 11-6 | .46 | .27 | 28.93 | 28.93 | 17.44 |
| 13-6 | .36 | .25 | 30.72 | 30.72 | 9.31 |
| 6-7 | .50 | .31 | 25.76 | 25.76 | 10.72 |
| 13-7 | -1.09 | .59 | 31.15 | 31.15 | 14.58 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 2100 HOUR AND ABOVE TESTS •

MODE 4

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6-5 | -82.30 | 92.50 | -82.62 | 92.86 |
| 6-6 | 84.50 | 93.30 | 83.11 | 91.76 |
| 11-6 | 85.50 | 92.30 | 85.42 | 92.21 |
| 13-6 | 83.30 | 93.30 | 83.70 | 93.75 |
| 6-7 | 82.80 | 91.00 | -82.64 | -90.83 |
| 13-7 | 84.50 | 94.00 | 83.66 | 93.06 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 4

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 12450. | 1.6460 | 1.6840 | 1723. | 1.300 | 33577. |
| 6-6 | 12900. | 1.6930 | 1.7790 | -1835. | 1.310 | 34453. |
| 11-6 | 13200. | 1.6530 | 1.8110 | 1800. | 1.310 | 34592. |
| 13-6 | 12800. | 1.6410 | 1.7280 | 1761. | 1.310 | 34442. |
| 6-7 | 12500. | 1.5850 | 1.7230 | 1730. | -1.293 | -33105. |
| 11-7 | 13200. | 1.7160 | 1.8030 | -1815. | 1.310 | 34316. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 4

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 12435. | 1.6590 | 1.6970 | 1734. | 33657. |
| 6-6 | 13116. | 1.6380 | 1.7210 | 1775. | 34453. |
| 11-6 | 13160. | 1.6500 | 1.8070 | 1797. | 34453. |
| 13-6 | 12742. | 1.6570 | 1.7440 | 1779. | 34453. |
| 6-7 | 12528. | 1.5790 | 1.7160 | -1723. | -33116. |
| 13-7 | 13396. | 1.6820 | 1.7680 | 1779. | 34453. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 4

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 3.477 | 9.0 | 2.1 | 163.4 | 159.3 |
| 6-6 | 3.573 | 8.2 | 4.5 | 225.2 | 215.9 |
| 11-6 | 3.493 | 8.2 | 2.5 | 208.6 | 196.3 |
| 13-6 | 3.465 | 9.5 | 6.8 | 205.4 | 196.5 |
| 6-7 | 3.345 | 11.1 | 3.0 | 159.3 | 157.3 |
| 13-7 | 3.624 | 16.2 | 5.3 | 236.0 | 233.7 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 4

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 3155. | .52 | .21 | 15.49 | 15.49 | 15.84 |
| 6-6 | 3149. | .46 | .43 | 20.75 | 20.75 | 15.71 |
| 11-6 | 3154. | .47 | .24 | 19.70 | 19.70 | 16.14 |
| 13-6 | 3153. | .55 | .68 | 19.54 | 19.54 | 7.19 |
| 6-7 | 3154. | .67 | .31 | 15.70 | 15.70 | 17.03 |
| 13-7 | 3151. | .89 | .51 | 21.45 | 21.45 | 8.97 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 4

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6-5 | 36.7640 | 56.0490 | 59.4860 | 39.7540 | 58.4300 | 70.4420 |
| 6-6 | 44.3130 | 55.8890 | 63.6660 | 31.7040 | 45.8150 | 60.3240 |
| 11-6 | 35.2570 | 50.1450 | 54.5840 | 34.7690 | 49.9340 | 63.7630 |
| 13-6 | 41.8300 | 68.1770 | 67.6230 | 46.2700 | 72.2750 | 80.7620 |
| 6-7 | -25.1470 | 38.9810 | 46.1250 | -24.3110 | -38.0940 | -53.6300 |
| 13-7 | -53.9860 | 69.8390 | 67.6010 | 43.6010 | 61.3670 | 72.6840 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 4

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | .48 | .20 | 19.83 | 19.83 | 14.74 |
| 6-6 | .64 | .52 | 19.66 | 19.66 | 14.63 |
| 11-6 | .48 | .24 | 23.01 | 23.01 | 15.75 |
| 13-6 | .50 | .64 | 23.34 | 23.34 | 6.18 |
| 6-7 | .69 | .32 | 18.25 | 18.25 | 8.56 |
| 13-7 | -1.11 | .58 | 23.07 | 23.07 | 8.97 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

J79D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 5

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6-5 | 75.40 | 89.70 | 75.69 | 90.05 |
| 6-6 | 76.00 | -91.10 | 74.75 | 89.60 |
| 11-6 | 77.20 | 88.70 | 77.13 | 88.61 |
| 13-6 | 74.70 | 89.80 | 75.06 | 90.24 |
| 6-7 | 75.00 | 89.50 | 74.86 | 89.33 |
| 13-7 | 75.50 | 90.50 | 74.75 | 89.60 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 5

| UNIT | FUEL FLOW LBM/HR | CR F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 9800. | 1.4650 | 1.5240 | 1606. | 1.215 | 26908. |
| 6-6 | 9600. | 1.4500 | 1.5710 | 1655. | 1.200 | 25800. |
| 11-6 | 9900. | 1.4390 | 1.5910 | 1653. | 1.210 | 26694. |
| 13-6 | 9400. | 1.4070 | 1.4990 | 1610. | 1.205 | 26185. |
| 6-7 | 9500. | 1.3670 | 1.5110 | 1601. | 1.205 | 26185. |
| 13-7 | 9400. | 1.4500 | 1.5280 | 1647. | 1.200 | 25837. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 5

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 9788. | 1.4770 | 1.5360 | 1618. | 26980. |
| 6-6 | 9761. | 1.4030 | 1.5200 | 1601. | 25800. |
| 11-6 | 9870. | 1.4360 | 1.5880 | 1650. | 26587. |
| 13-6 | 9358. | 1.4200 | 1.5140 | 1625. | 26193. |
| 6-7 | 9521. | 1.3620 | 1.5050 | 1594. | 26193. |
| 13-7 | 9533. | 1.4220 | 1.4980 | 1615. | 25800. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 5

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOx CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 3.089 | 13.8 | 1.6 | -42.4 | -43.8 |
| 6-6 | 3.053 | 12.2 | 4.0 | 129.8 | 124.4 |
| 11-6 | 3.033 | 12.3 | 2.1 | 119.0 | 111.2 |
| 13-6 | 2.963 | 14.6 | 4.4 | 110.6 | 108.2 |
| 6-7 | 2.880 | 17.3 | 2.7 | 97.3 | 98.3 |
| 13-7 | 3.056 | 19.7 | 4.8 | 119.4 | 120.8 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 5

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 3154. | .90 | .18 | -4.52 | -4.68 | 10.13 |
| 6-6 | 3149. | .80 | .46 | 13.99 | 13.99 | 7.84 |
| 11-6 | 3154. | .81 | .24 | 12.94 | 12.94 | 10.21 |
| 13-6 | 3153. | .99 | .51 | 12.30 | 12.30 | 4.82 |
| 6-7 | 3153. | 1.21 | .32 | 11.13 | 11.26 | 11.43 |
| 13-7 | 3152. | 1.10 | .55 | 12.88 | 13.03 | 4.15 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 5

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6-5 | 16.5440 | 31.3240 | 41.1430 | 17.6400 | 32.5850 | 48.6120 |
| 6-6 | -18.9600 | 36.0550 | -48.1350 | 14.4100 | 29.7570 | 45.9370 |
| 11-6 | 13.5820 | 24.5540 | 34.8020 | 13.4360 | 24.4660 | 40.6820 |
| 13-6 | 15.0110 | 32.0420 | 41.8400 | 16.2420 | 33.8510 | 49.7850 |
| 6-7 | 13.2790 | 28.8440 | 38.1860 | 12.9080 | 28.2030 | 44.4240 |
| 13-7 | 17.5890 | 33.6110 | 42.3960 | 14.9130 | 29.7380 | 45.9180 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 5

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRF CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | .84 | .18 | -5.74 | -5.93 | 9.85 |
| 6-6 | 1.05 | .55 | 13.35 | 13.35 | 7.84 |
| 11-6 | .82 | .24 | 15.13 | 15.13 | 9.21 |
| 13-6 | .91 | .49 | 14.64 | 14.64 | 4.68 |
| 6-7 | 1.24 | .33 | 12.95 | 13.10 | 4.22 |
| 13-7 | 1.53 | .62 | 13.95 | 14.11 | 4.15 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 6

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 4-5 | 55.50 | 84.50 | 55.72 | 84.83 |
| 4-6 | 55.00 | 85.00 | 54.10 | 83.60 |
| 11-6 | 58.50 | 83.00 | 58.44 | 82.92 |
| 13-6 | 55.00 | 83.40 | 55.27 | 83.80 |
| 4-7 | 55.50 | 84.50 | 55.39 | 84.34 |
| 13-7 | 55.00 | 83.50 | 54.45 | 82.67 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A • 2100 HOUR AND ABOVE TESTS •

MODE 6

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 5250. | 1.1680 | 1.2160 | 1376. | 1.085 | 12896. |
| 6-6 | 4800. | 1.1250 | 1.1630 | 1399. | 1.080 | 12240. |
| 11-6 | 5400. | 1.1520 | 1.3200 | 1408. | 1.080 | 12289. |
| 13-6 | 4950. | 1.0890 | 1.1910 | 1381. | 1.080 | 12236. |
| 6-7 | 5070. | 1.1040 | 1.2190 | 1377. | 1.080 | 12236. |
| 13-7 | 4850. | 1.1100 | 1.1720 | 1403. | 1.080 | 12191. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 2100 HOUR AND ABOVE TESTS •

MODE 6

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 5244. | 1.1770 | 1.2250 | 1386. | 12930. |
| 6-6 | 4880. | 1.0890 | 1.1250 | 1353. | 12240. |
| 11-6 | 5394. | 1.1500 | 1.3170 | 1405. | 12240. |
| 13-6 | 4928. | 1.0990 | 1.2030 | 1394. | 12240. |
| 6-7 | 5091. | 1.1000 | 1.2140 | 1372. | 12240. |
| 13-7 | 4918. | 1.0980 | 1.1490 | 1375. | 12240. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 6

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 2.445 | 98.8 | 5.8 | 38.3 | 47.7 |
| 6-6 | 2.352 | 87.1 | 7.2 | 45.7 | 50.0 |
| 11-6 | 2.413 | 97.7 | 2.6 | 49.7 | 50.0 |
| 13-6 | 2.276 | 94.4 | 9.7 | 40.6 | 45.1 |
| 6-7 | 2.309 | 101.8 | 4.9 | 39.1 | 44.8 |
| 13-7 | 2.320 | 108.2 | 9.7 | 40.5 | 47.5 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 6

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 3141. | 8.08 | .81 | 5.15 | 6.41 | 4.68 |
| 6-6 | 3137. | 7.40 | 1.05 | 6.37 | 6.97 | 2.61 |
| 11-6 | 3143. | 7.27 | .37 | 6.77 | 6.81 | 4.94 |
| 13-6 | 3139. | 8.28 | 1.31 | 5.85 | 6.50 | 2.08 |
| 6-7 | 3140. | 8.81 | .73 | 5.55 | 6.37 | 4.88 |
| 13-7 | 3137. | 9.31 | 1.44 | 5.72 | 6.72 | .78 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 6

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6-5 | 5.1110 | 11.0880 | 21.7250 | 5.3570 | 11.4930 | 25.5700 |
| 6-6 | 4.9670 | 10.7420 | 22.7340 | 4.0810 | 9.0240 | 22.1110 |
| 11-6 | 4.1020 | 7.8920 | 17.4290 | 4.0720 | 7.8710 | 20.3950 |
| 13-6 | 4.0080 | 8.9420 | 19.1440 | 4.2420 | 9.3950 | 22.6480 |
| 6-7 | 4.6290 | 10.6450 | 20.6840 | 4.5280 | 10.4260 | 24.1060 |
| 13-7 | 4.0910 | 8.3470 | 18.0340 | 3.6350 | 7.4760 | 19.7880 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 6

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | 7.71 | .78 | 6.51 | 8.10 | 4.68 |
| 6-6 | 9.00 | 1.25 | 6.65 | 7.28 | 2.26 |
| 11-6 | 7.33 | .38 | 7.33 | 7.97 | 4.70 |
| 13-6 | 7.83 | 1.24 | 7.43 | 8.26 | 1.98 |
| 6-7 | 9.00 | .75 | 6.47 | 7.42 | 1.31 |
| 13-7 | -10.48 | 1.61 | 6.28 | 7.37 | .78 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 7

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6-5 | 30.50 | 69.00 | 30.62 | 69.27 |
| 6-6 | 31.00 | 68.40 | 30.49 | -67.27 |
| 11-6 | 32.00 | 68.00 | 31.97 | 67.93 |
| 13-6 | 30.50 | 68.80 | 30.65 | 69.13 |
| 6-7 | 33.30 | 69.50 | 33.24 | 69.37 |
| 13-7 | 31.00 | 69.50 | 30.69 | 68.81 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 7

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 2100. | .9370 | .7160 | 1161. | 1.025 | 4831. |
| 6-6 | 2000. | .8840 | .7050 | 1206. | 1.025 | -4146. |
| 11-6 | 2050. | .8530 | .7350 | 1174. | 1.020 | 4395. |
| 13-6 | 2050. | .8890 | .7200 | 1217. | 1.020 | 4795. |
| 6-7 | 2300. | .8630 | .7900 | 1190. | -1.030 | 4877. |
| 13-7 | 2000. | .9530 | .7010 | -1251. | 1.025 | 4664. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 7

| UNIT | CORR FU FL LBM/HR | COR CB F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 2097. | .9440 | .7220 | 1170. | 4844. |
| 6-6 | 2033. | .8560 | .6820 | 1167. | -4146. |
| 11-6 | 2044. | .8520 | .7330 | 1172. | 4377. |
| 13-6 | 2041. | .8980 | .7270 | 1229. | 4797. |
| 6-7 | 2305. | .8590 | .7870 | 1186. | 4878. |
| 13-7 | 2028. | .9340 | .6870 | 1226. | 4682. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 7

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 1.939 | 713.1 | -177.4 | 7.8 | 14.3 |
| 6-6 | 1.751 | 624.0 | 126.5 | -16.7 | 18.3 |
| 11-6 | 1.701 | 624.8 | 83.3 | -17.7 | 17.4 |
| 13-6 | 1.779 | 598.2 | 83.7 | 15.9 | 17.4 |
| 6-7 | 1.717 | 571.8 | 112.4 | -16.9 | 18.8 |
| 13-7 | 1.911 | 558.7 | 108.0 | 12.0 | 18.8 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 7

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 2956. | 72.96 | -31.18 | 1.31 | -2.75 | 2.00 |
| 6-6 | 2980. | 67.61 | 23.55 | -2.98 | 3.25 | 1.96 |
| 11-6 | 3002. | 70.19 | 15.88 | -3.27 | 3.27 | 1.95 |
| 13-6 | 3012. | 64.45 | 15.50 | -2.82 | 3.08 | .78 |
| 6-7 | 2997. | 63.53 | 21.45 | -3.08 | 3.43 | 1.03 |
| 13-7 | 3017. | 56.13 | 18.63 | 1.98 | 3.10 | 1.69 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 7

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6-5 | .6050 | .4580 | 3.7610 | .6240 | .4710 | 4.3840 |
| 6-6 | .5530 | .3920 | 3.6980 | .4850 | -.3430 | -3.7390 |
| 11-6 | .5140 | .3820 | -3.3610 | .5120 | .3810 | 3.9420 |
| 13-6 | .5680 | .4420 | 3.7030 | .5910 | .4600 | 4.3320 |
| 6-7 | .5930 | .4870 | 3.7800 | .5840 | .4790 | 4.4250 |
| 13-7 | .6480 | .4790 | 3.7660 | .5940 | .4370 | 4.2230 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 7

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | 70.74 | -30.35 | 1.64 | 3.44 | 2.25 |
| 6-6 | 77.18 | 26.96 | 3.24 | 3.54 | 1.45 |
| 11-6 | 70.48 | 15.88 | -3.83 | 3.83 | 1.59 |
| 13-6 | 61.95 | 14.91 | -3.55 | 3.87 | .66 |
| 6-7 | 64.52 | 21.80 | -3.41 | 4.02 | 1.03 |
| 13-7 | 61.24 | 20.38 | 2.27 | 3.48 | 1.69 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A • 2100 HOUR AND ABOVE TESTS •

MODE A

| UNIT | N1 SPEED PER CENT | N2 SPEED PER CENT | CORR N1 PER CENT | CORR N2 PER CENT |
|---|---|---|---|---|
| 6-5 | 28.40 | -67.00 | 28.51 | -67.26 |
| 6-6 | 27.50 | 65.60 | 27.05 | 64.52 |
| 11-6 | 27.50 | 64.20 | 27.47 | 64.14 |
| 13-6 | 27.50 | 65.80 | 27.43 | 66.12 |
| 6-7 | 27.60 | 65.50 | 27.55 | 65.37 |
| 13-7 | 26.00 | 64.50 | 25.74 | 63.86 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 8

| UNIT | FUEL FLOW LBM/HR | CB F/A X100 | PERF F/A X100 | TT6 DEG R | EPR | THRUST LBF |
|---|---|---|---|---|---|---|
| 6-5 | 1950. | .9140 | .7440 | 1152. | -1.025 | -4130. |
| 6-6 | 1750. | .8800 | .7670 | 1188. | 1.020 | 3256. |
| 11-6 | 1750. | .8630 | .8690 | 1170. | 1.015 | 3154. |
| 13-6 | 1850. | .9090 | .8040 | 1212. | 1.020 | 3763. |
| 6-7 | 1850. | .8560 | .8100 | 1143. | 1.020 | 3520. |
| 13-7 | 1800. | .9540 | .7570 | -904. | 1.020 | 3045. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 8

| UNIT | CORR FU FL LBM/HR | COR CR F/A X100 | COR PF F/A X100 | CORR TT6 DEG R | COR THRUST LBF |
|---|---|---|---|---|---|
| 6-5 | 1948. | .9210 | .7500 | 1161. | -4141. |
| 6-6 | 1779. | .8520 | .7420 | 1150. | 3256. |
| 11-6 | 1745. | .8610 | .8670 | 1168. | 3141. |
| 13-6 | 1942. | .9180 | .8120 | 1223. | 3764. |
| 6-7 | 1854. | .8520 | .8070 | 1159. | 3522. |
| 13-7 | 1825. | .9350 | .7420 | -886. | 3057. |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 8

| UNIT | CO2 CONC PER CENT | CO CONC PPM | HC CONC PPM | NO CONC PPM | NOX CONC PPM |
|---|---|---|---|---|---|
| 6-5 | 1.763 | 813.5 | 233.7 | 6.9 | 15.0 |
| 6-6 | 1.705 | 781.7 | 195.6 | 13.7 | 15.5 |
| 11-6 | 1.678 | 782.5 | 171.3 | -14.5 | 14.7 |
| 13-6 | 1.783 | 703.8 | 171.2 | -14.3 | 15.7 |
| 6-7 | 1.638 | 839.6 | 231.4 | 13.0 | 14.5 |
| 13-7 | 1.872 | 728.9 | 183.6 | 9.4 | 15.3 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 8

| UNIT | CO2 EI LB/KLB FU | CO EI LB/KLB FU | HC EI LB/KLB FU | NO EI LB/KLB FU | NOX EI LB/KLB FU | SMK NUMBER FRONT SIDE |
|---|---|---|---|---|---|---|
| 6-5 | 2906. | 85.34 | 42.13 | 1.19 | 2.59 | 2.22 |
| 6-6 | 2917. | 85.12 | 36.59 | 2.45 | 2.78 | 1.82 |
| 11-6 | 2930. | 86.95 | 32.70 | -2.65 | 2.68 | 1.05 |
| 13-6 | 2954. | 74.21 | 31.02 | 2.47 | 2.72 | 1.43 |
| 6-7 | 2886. | 94.02 | 44.56 | 2.40 | 2.66 | 1.82 |
| 13-7 | 2954. | 73.22 | 31.68 | 1.54 | 2.53 | 1.68 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE 8

| UNIT | FCO X100 | FHC X100 | FNO X100 | STD FCO X100 | STD FHC X100 | STD FNO X100 |
|---|---|---|---|---|---|---|
| 6-5 | -.4970 | -.3330 | -3.2050 | -.5120 | -.3420 | -3.7340 |
| 6-6 | .4550 | .2800 | -3.0760 | .4000 | .2450 | 3.1310 |
| 11-6 | .3950 | .2350 | 2.6090 | .3940 | .2350 | 3.0600 |
| 13-6 | .4500 | .2810 | 2.9450 | .4680 | .2910 | 3.4410 |
| 6-7 | .4280 | .2730 | 2.8110 | .4220 | .2690 | 3.2930 |
| 13-7 | .4500 | .2510 | 2.6820 | .4140 | .2300 | 3.0210 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

JT9D-3A * 2100 HOUR AND ABOVE TESTS *

MODE A

| UNIT | NREC CO EI LB/KLB FU | NREC HC EI LB/KLB FU | NRE CNO EI LB/KLB FU | NR CNOX EI LB/KLB FU | SMK NUMBER CORRECTED |
|---|---|---|---|---|---|
| 6-5 | 82.85 | 41.04 | 1.49 | 3.24 | 1.99 |
| 6-6 | 96.78 | 41.73 | 2.68 | 3.03 | 1.82 |
| 11-6 | 87.29 | 32.71 | -3.11 | 3.14 | 1.05 |
| 13-6 | 71.39 | 29.87 | -3.10 | 3.41 | 1.43 |
| 6-7 | 95.40 | 45.27 | 2.82 | 3.12 | 1.92 |
| 13-7 | 79.54 | 34.51 | 1.74 | 2.85 | 1.68 |

NOTE- MINUS SIGNS DENOTE OUTLYING VALUES

## 5. FUEL ANALYSIS DATA

| Unit No. | Test Series | deg API | H/C Ratio | FIA percent | | |
|---|---|---|---|---|---|---|
| | | | | Paraffin | Olefin | Aromatic |
| 1 | Baseline | 42.6 | 1.92 | 84 | 2 | 14 |
| | 600-Hour | 43.2 | 1.92 | 84 | 2 | 14 |
| | 1200-Hour | 43.6 | 1.93 | 87 | 1 | 12 |
| 2 | Baseline | 42.6 | 1.92 | 84 | 2 | 14 |
| | 600-Hour | 43.2 | 1.92 | 84 | 2 | 14 |
| | 1200-Hour | 43.6 | 1.93 | 87 | 1 | 12 |
| 3 | Baseline | 42.6 | 1.92 | 84 | 2 | 14 |
| | 600-Hour | 43.2 | 1.92 | 84 | 2 | 14 |
| 4 | Baseline | 41.3 | 1.89 | 84 | 3 | 13 |
| | 600-Hour | 41.9 | 1.90 | 84 | 1 | 15 |
| 5 | Baseline | 41.3 | 1.89 | 84 | 3 | 13 |
| 6 | Baseline | 41.3 | 1.89 | 84 | 3 | 13 |
| | 600-Hour | 41.9 | 1.90 | 84 | 1 | 15 |
| | 1200-Hour | 43.4 | 1.94 | 86 | 2 | 12 |
| | 1500-Hour | 43.8 | 1.91 | 86 | 1 | 13 |
| | 2100-Hour * | | | | | |
| | 2400-Hour | 43.4 | 1.94 | 83 | 2 | 15 |
| | 2700-Hour | 43.6 | 1.92 | 85 | 1 | 14 |
| 7 | Baseline | 41.3 | 1.89 | 84 | 3 | 13 |
| | 600-Hour | 41.9 | 1.90 | 84 | 1 | 15 |
| | 1200-Hour | 43.4 | 1.94 | 86 | 2 | 12 |
| | 1500-Hour | 43.8 | 1.91 | 86 | 1 | 13 |
| 8 | Baseline | 42.8 | 1.94 | 85 | 2 | 13 |
| 9 | Baseline | 42.8 | 1.94 | 85 | 2 | 13 |
| | 600-Hour | 44.7 | 1.94 | 86 | 1 | 13 |
| | 1200-Hour | 42.2 | 1.90 | 84 | 2 | 14 |
| | 1500-Hour | 43.6 | 1.91 | 83 | 1 | 16 |
| | 1800-Hour | 44.7 | 1.91 | 83 | 1 | 16 |

* Fuel . sis data not available

| Unit No. | Test Series | deg API | H/C Ratio | FIA, percent | | |
|---|---|---|---|---|---|---|
| | | | | Paraffin | Olefin | Aromatic |
| 10 | Baseline | 42.1 | 1.92 | 84 | 2 | 14 |
| | 600-Hour | 44.1 | 1.91 | 84 | 2 | 14 |
| 11 | Baseline | 41.7 | 1.90 | 83 | 2 | 15 |
| | 600-Hour * | | | | | |
| | 1200-Hour * | | | | | |
| | 1500-Hour | 43.8 | 1.93 | 84 | 1 | 15 |
| | 1800-Hour | 42.3 | 1.91 | 84 | 1 | 15 |
| | 2100-Hour | 43.4 | 1.92 | 84 | 2 | 14 |
| 12 | Baseline | 42.1 | 1.92 | 84 | 2 | 14 |
| | 600-Hour | 44.1 | 1.91 | 84 | 2 | 14 |
| | 1200-Hour | 43.8 | 1.95 | 85 | 2 | 13 |
| | 1500-Hour | 43.6 | 1.92 | 84 | 1 | 15 |
| 13 | Baseline | 42.1 | 1.94 | 85 | 2 | 13 |
| | 600-Hour | 43.4 | 1.92 | 84 | 2 | 14 |
| | 1200-Hour | 43.4 | 1.93 | 86 | 2 | 12 |
| | 1500-Hour | 44.3 | 1.90 | 84 | 2 | 14 |
| | 1800-Hour | 42.8 | 1.91 | 84 | 2 | 14 |
| | 2100-Hour | 42.8 | 1.92 | 84 | 2 | 14 |
| | 2700-Hour * | | | | | |
| 14 | Baseline | 42.1 | 1.94 | 85 | 2 | 13 |
| 15 | Baseline | 39.0 | 1.90 | 83 | 2 | 15 |
| 16 | Baseline | 39.0 | 1.90 | 83 | 2 | 15 |
| | 600-Hour | 43.0 | 1.90 | 84 | 2 | 14 |
| | 1200-Hour | 44.5 | 1.92 | 86 | 1 | 13 |
| | 1500-Hour | 42.3 | 1.90 | 83 | 2 | 15 |
| | 1800-Hour | 42.6 | 1.92 | 84 | 2 | 14 |
| 17 | Baseline | 39.0 | 1.90 | 83 | 2 | 15 |
| | 600-Hour | 43.0 | 1.90 | 84 | 2 | 14 |
| 18 | Baseline | 39.0 | 1.89 | 83 | 2 | 15 |
| 19 | Baseline | 39.0 | 1.89 | 83 | 2 | 15 |

* Fuel analysis data not available

| Unit No. | Test Series | deg API | H/C Ratio | FIA, percent | | |
|---|---|---|---|---|---|---|
| | | | | Paraffin | Olefin | Aromatic |
| 20 | Baseline | 42.3 | 1.92 | 85 | 2 | 13 |
| | 600-Hour | 41.9 | 1.91 | 84 | 2 | 14 |
| | 1200-Hour | 43.2 | 1.92 | 85 | 1 | 14 |
| | 1500-Hour | 44.1 | 1.93 | 86 | 2 | 12 |
| 21 | Baseline | 44.1 | 1.90 | 86 | 1 | 13 |
| | 1500-Hour | 45.4 | 1.94 | 81 | 2 | 17 |
| 22 | Baseline | 41.9 | 1.90 | 84 | 1 | 15 |
| | 600-Hour | 44.1 | 1.92 | 87 | 2 | 11 |
| | 1200-Hour | 44.1 | 1.90 | 86 | 1 | 13 |
| 23 | Baseline | 44.1 | 1.93 | 86 | 2 | 12 |
| | 600-Hour * | 44.5 | 1.91 | 84 | 1 | 15 |
| | 1200-Hour | 44.5 | 1.91 | 82 | 1 | 17 |
| 24 | Baseline | 44.3 | 1.90 | 84 | 2 | 14 |
| | 600-Hour | 42.6 | 1.92 | 84 | 2 | 14 |
| | 1200-Hour * | | | | | |
| | 1500-Hour * | | | | | |
| 25 | Baseline | 43.8 | 1.94 | 85 | 1 | 14 |
| | 1200-Hour * | | | | | |

* Fuel analysis data not available

## 6. REFERENCES


1. Adams, H. T., Elements of Internal Combustion Turbine Theory, Cambridge University Press, 1949.

2. "T53 and T55 Gas Turbine Combustor and Engine Exhaust Emission Measurements", USAAMRDL Technical Report 73-47, December 1973.

3. "Control of Air Pollution from Aircraft and Aircraft Engines, Emissions Standards and Test Procedures for Aircraft", Federal Register, vol. 38, no. 136, Part II, July 17, 1973.




PRECEDING PAGE BLANK-NOT FILMED

FILMED
ANA-64A
NAFEC
ATLANTIC CITY, N.J.
08405